THE

# "Bradshawe" Lecture

ON

# SOME RARE AND NEW DISEASES.

*Delivered at the Royal College of Surgeons of England on December 13th, 1882,*

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MR. PRESIDENT AND GENTLEMEN,—It is my first duty, in delivering the first Bradshawe Lecture in our College, to offer a tribute of respectful thanks to the generous lady by whom it was founded, the widow of Mr. William Wood Bradshawe, a Fellow of this College, who practised at Andover and at Reading, and died in 1866. He was a home-loving and studious man, who diligently cultivated his mind in both literature and science, and his widow, who survived him fourteen years, being desirous to testify her gratitude for the happiness which she owed to him, bequeathed a thousand pounds to this College, and as much to the Royal College of Physicians, on the condition that each should institute a lecture, to be given annually and to bear his name. She desired that the lecture should be on some subject connected with medicine or surgery, and that the choice of the lecturer should rest with the President of each College for the time being. She made no stringent regulations, and seems to have wished only to maintain her husband's name in good repute by associating it with the advancement of the science which he loved.

In my endeavour to fulfil her exemplary wish, I have chosen the subject of Some Rare and New Diseases. I hope to be able, in speaking of them, to illustrate a part of the natural history of disease which I think is too little studied—that part, namely, which relates to the variations and the combinations of diseases in hereditary transmission. Besides, both in the choice of its subject and in the whole enterprise of giving this lecture, I have looked for an opportunity of promoting pathology by promoting pathological museums, a motive which I am sure will be pardoned, though I am conscious of its being in some measure personal, for I have spent so much time and thought in museums, that I feel as if, in their greater utility, I should myself become more useful.

Now, first, respecting rare diseases, there may seem no want of opportunities of studying them. Our journals and the proceedings of our societies are full of the records of rare cases; many collections of such cases have been published, and there are many rare specimens in every museum. All these have that kind of attraction which belongs to everything that excites our wonder, but we too seldom let the wonder have its proper consequence; we too seldom let it provoke our curiosity so far as to make us search for the meaning and reason of the rarity. There is a question which we should often ask ourselves, Why is any disease rare? at least, why is any rare which does not depend on some accident or some rarely occurring external cause? I shall try to suggest answers which may be, in some instances, sufficient; but I fear that, in more instances, if I can be useful at all, it can only be by suggesting how answers may be found.

First, there is a difference, though it may often seem only a verbal one, between rare cases and rare diseases. A case may be called rare when, though it is evidently one of a common disease, it differs from the usual type or standard of that disease in some one or two features. Thus it is a rare case when a common disease is found in an unusual place; as an epithelial cancer on the upper lip, or this fatty tumour on a finger; or in unusual quantity, as in this large cartilaginous tumour on a femur; or, again, a case may be rare in respect of the time of its occurrence. For instance, I have lately seen cancer of the rectum ending fatally in a lad of eighteen, and scrofulous abscess in a man of eighty; and many of us must have seen instances, though they are rare (and these are very important in the history of diseases), in which manifestations of syphilitic inheritance, usually evident in infancy, have not appeared till the time of youth or even of adult age; or cases may be very rare in respect of accidental complications or of the absence of some usual symptom. But of all these and other rare cases the number and variety are so great that it would be impossible to deal generally with them, except as with mere story-telling. It would be very useful if someone would collect hundreds or thousands of them, and arrange them, even though it were only under such headings as I have just indicated. But even as they are singly and in disorder, let me say that we ought not to set them aside with idle thoughts or idle words about "curiosities" or "chances." Not one of them is without a meaning; not one but might be the beginning of excellent knowledge, if only we could answer the question, Why is this rare? or, being rare, why did it in this instance happen?

But, because of their number and variety, I must pass by rare cases and will speak only of some rare diseases—that is, of some diseases which are rarely seen and yet occur in a sufficient number of cases, and with sufficient uniformity, and sufficient difference from other diseases, to permit of their being described in general terms, and to justify their being called by distinctive names. And of these again, for they are numerous and various, I shall select only that group which seems most attractive; the group of those, namely, of which there seems reason enough for believing: First, that they were, lately, new diseases and have become more frequent; and, secondly, that they are due mainly to morbid conditions changing and combining in transmission from parents to offspring. I say due mainly. It is certain that changes in the external conditions of our life have influence on even those morbid conditions which are most personal; but this influence is very hard or impossible to trace in the cases which I have in mind, and it may to-day be neglected though not forgotten. For, in all these cases, the personal factors and those of which alone I have to speak are more potent than the conditional, the inner than the outer. We call these diseases constitutional, diathetic, or by similar names; but the chief fact in them is that they, or the necessary previous states or predispositions to them, are inborn and inbred.

Let me first show that there is reason enough for believing that some rare diseases of this kind were recently—say within the last century—new; and that more recently, though still rare, they have become more frequent. There is, I know, a general unwillingness among pathologists to admit that there are new diseases of this kind; and this unwillingness is often just, for many diseases that may seem new have probably existed long and been overlooked; they may be new to knowledge, but not new in fact. Bright's disease and Addison's disease were new in the sense of having first been well observed and described by those whose names they bear; but no one would venture to say of diseases so difficult to detect, as these used to be, that they did not exist long before they were well observed. We could as well believe that embolism never occurred till just before it was found out, or that right-side hemiplegia used not to be associated with aphasia. These things were old before they seemed to be new; but how long they had existed neither records nor museums can tell. It would be, indeed, very interesting if we could tell the time and manner of first appearing in the case of many diseases which are now common; but it is scarcely ever possible. And yet, if you will allow me a digression, let me show what in some instances museums may supply, and what I hope they will in the future supply much more largely. Here are specimens of typhoid ulcers of the intestines preserved by Hunter. Few things have been more important in the knowledge of fevers than the clear proofs of the distinction between typhus and typhoid given by Sir William Jenner in 1850. It was one of the best life-saving discoveries of this century; before it both diseases were at least partially misunderstood, and neither was so well treated as now. Since the distinction between them was discovered it has been possible to trace in old recorded cases probable instances of both; but there is nowhere so clear evidence of the occurrence of typhoid a century or more ago as is given in these specimens of Hunter's preserved without name or history; not unobserved, and yet not in any fair sense understood. Now in this, as in many things, Hunter set us a good example. He did not think those things unimportant which he did not understand. He was a thorough naturalist, and kept specimens of everything in his field of study which, though not yet, might become useful.

But, however much of what seems to be new we may justly ascribe to our previous oversight of what was old,

there yet seems to be evidence enough that new diseases are in progress of evolution, and that, as I have said, some of the rare diseases of which I have to speak are the earliest instances of the new. Good evidence of this kind is to be found, I believe, in the peculiar joint-disease discovered by M. Charcot in association with locomotor ataxy, and in the disease of bones to which I have given the name of osteitis deformans. Neither of these, I believe, was described till within the last few years. They may have been overlooked, but to believe this we must believe what is very improbable. We must believe that all the most acute and observant practitioners before our time overlooked, not merely obscure and transient diseases, difficult to study, but cases which lasted many years and gave constant great distress, and were manifested in signs so plain that they could be recognised in the shape and gait, in the posture and whole aspect of the patients, in strangely large heads and curved limbs. And, further, we must believe that the morbid anatomists before ourselves overlooked changes of structure of the largest, most obvious, and most striking kind. It is, surely, very unlikely that they who studied and recorded such cases as those of extreme rickets and mollities ossium, and even called it rachitis adultorum, should have left unnoticed the cases of these two equally and somewhat similarly disfiguring and damaging diseases. This great improbability is strengthened by that which I believe to be a fact—that we have none but recently collected specimens of either of these diseases in our museums; not even among the crowds of bones and joints collected by our predecessors.

In twenty-six years I have seen twelve well-marked cases of the osteitis deformans, and about as many in which it was only partially evident. In the last six of these years I have seen seven of these cases, and others have been published, and yet I cannot find evidence that the disease was ever seen by any of those who had practice like my own; Brodie and Stanley, who saw as many cases of diseased bones as any surgeons of the last generation, had seen no case but that which I showed them more than twenty-five years ago in the patient from whom these specimens were taken. Moreover, I cannot find an old specimen in our museums, or a representation of one in any book of plates, or a description of one in any catalogue. This might not seem very strange in the case of specimens troublesome or expensive to keep, or in such as are said to "show nothing." But these are very striking deviations from health, very plainly to be seen, and dry bones are neither costly nor troublesome to keep. We have large numbers of them collected by Hunter, Howship, Langstaff, Liston, Cooper, Stanley, and others, who collected not merely illustrations of diseases well known to them, but whatever was curious, whether it were understood or not. They would have looked on these bones as gems.

I might repeat this statement in nearly every particular concerning M. Charcot's disease. I believe there is not an old specimen in our museums. There is not one in the Musée Dupuytren; I cannot find a notice or an illustration of one. And yet this disease is now so far from being very rare that Dr. Buzzard has had nine cases under his eye at one time, and several have in recent years been shown in our societies.

Let me adduce one more instance of what I believe to have been new diseases within this century, though the museum evidence is not so strong as in those of which I have been speaking. Many believe, and, I think, quite rightly, that instances of typical gout, such as gained for it the name "podagra," have lately become comparatively rare, and that a large number of less acute diseases, regarded as forms of incomplete or suppressed gout, are much more frequent. It may be that some or many of these lesser forms were always as common as they are now, but were overlooked or were not distinguished from other similar ailments. But here is a specimen of the effects of phlebitis of the femoral and external iliac veins, which, with its history, may tell that gouty inflammation of the veins was, fifty years ago, if not a new disease, yet a much rarer one than it is now. Sir Henry Halford saw as much of gout, I suppose, as any man that ever lived; for he was for many years, during a very luxurious period, in the largest practice among the richest people in this town. He gave an account in 1832 of what he called phlegmasia dolens in the male. The disease so-called was common and well-known in women after parturition; so that, to justify his essay as a record of cases hitherto unobserved, it was enough for him to speak of phlegmasia dolens as occurring in men. He speaks of it as having been not long before regarded as "immediately occasioned by a deposit of milk"; but that "being tested by a more exact pathology," it was now attributed to "an inflammation of the veins of the pelvis." And he says, "he was much mistaken if he had not seen three instances of it" in men "within the last few years." He then relates the case of the nobleman from whom, several years afterwards, this specimen was taken by Sir Astley Cooper—an admirable example of phlebitis, which we may be nearly sure was gouty, showing the changes in the blood-clots and in the walls of the veins during many years.

At the present time, phlebitis of this kind in the male can scarcely be called a very rare disease. There are few, I imagine, in large practice who have not seen many more than three cases within the last few years. So, we may believe, I think, that the disease has become more frequent in the last fifty years; and may suspect that not long before Sir Henry Halford's time it may have been a really new disease. It is hard to believe that it could have been overlooked. Its characters are strongly marked and evident to both eye and touch; it is a very painful, disabling, long enduring disease, often recurring, sometimes observed in several members of the same family, and commonly leaving the affected limb large, heavy, and clumsy for many years. Could this have been overlooked when similar limbs, in consequence of an allied, though not the same disease, were known and described in women, and while, as it happened, the subject of phlebitis, in its traumatic and pyæmial forms, was being very carefully studied? For there was a form of phlebitis much more common in the last century than in this; the phlebitis that occurred after bleeding. Hunter had studied this very carefully, had written on it, and shown it in these specimens; and after him, both this and the phlebitis after amputation were well known. Especially after the beginning of this century the phlebitis after amputation was thoroughly worked at. It was only three years before the publication of Sir Henry Halford's essay that Mr. Arnott's renowned paper on inflammation of the veins was published in the Medico-Chirurgical Transactions. In the same volume are the chief papers by Dr. Robert Lee on phlegmasia dolens; and he describes cases of phlebitis associated with pelvic cancer; but not one spontaneous phlebitis is mentioned by either of them.

Now, I think that in all these facts there is enough, not, indeed, to prove, but to justify the belief that we have here examples of diseases which have appeared in this country for the first time within the last century, and which have since become sufficiently frequent, and acquired sufficiently constant and distinctive characters to be described in general terms and called by new names. Let me repeat; these are not diseases hard to be discerned. They are so well-marked, so distressing, so long enduring, and both during life and after death so large and distinct in all their characters that it seems impossible that, unless they were very much rarer than they are now, they could have been overlooked.

I think it probable that there are other examples of the like kind; but I do not know them, and would rather go on to the second part of my subject—namely, to show the probability, or, at least, to justify the hypothesis, that these diseases are among the instances of the results of morbid conditions, changing and combining in transmission from parents to offspring.

It should hardly be necessary to argue that changes of type in inherited diseases—changes which may be compared with the variations of species or of varieties in natural history—do take place. Yet I venture to think that many of us are prone to think too little of these variations; to regard them as rather unmeaning exceptions, or as the results of some unusual external conditions diverting diseases from their customary course.

It will be better for us if we study, in pathology as in natural history, varieties as much as species; changes as well as more stable forms. Types of disease there are, standard forms, and the tenacity with which they are maintained—some, even, from pre-historic times—in all the varieties of the conditions of our lives is one of the most remarkable facts in all pathology. But they are not unalterable. Types vary in diseases, as in species; even in the diseases which depend least upon external conditions, and most on the qualities which are transmitted by inheritance.

Let me give some reasons why this must be.

1st. An exact likeness is never transmitted by inheritance; neither an exact likeness of either parent, nor an exact composite of both. This is evident enough in features, size, weight, and all that we can observe in external things.

If we could be exactly endoscopic we should observe equal variation within; the same want of exact likeness in liver and lung, and, I venture to say, in blood and lymph and plasma, and whatever goes to make up the whole person, healthy or diseased. The inheritance of likeness in disease, or liability to disease, is, indeed, clear evidence of the transmission of likeness in the very minutest structure and composition. But the likeness is never perfect, it may in different persons deviate this way or that; it may vary towards disease or back again towards the healthy type; but it is never perfect, and in successive generations its degree of unlikeness may increase to a great width of difference.

2nd. The certainty and probable extent of this variation must seem the greater if we consider the mingling of diatheses, and of all dispositions and liabilities to diseases in transmission from and through both parents. Consider the difficulty of maintaining the "breed" in any of the varieties of the species domesticated or cultivated by us, in horses or dogs, in pigeons or in seedling plants; the care that both parents should be of the same blood, or the same race, and that their produce should be raised in all due conditions; and then consider how numerous and wide, in spite of all this care, are the deflections from the type. With these facts before us we cannot imagine that diseased conditions should often be transmitted singly and unchanged; it is, surely, not likely that disease should be transmitted with more fixed conformity to type than normal compositions are. Hybrids and mongrels must be even more common among diseases than among species and varieties.

3rd. And, in thinking of the variation of diseases by combining or convergence of inherited qualities, we may not limit our thoughts to a single generation. It is reasonable to believe that instances occur of reversion, in which diseases or tendencies to disease may appear after a lapse of many generations Such, I expect, are some of the cases in which leprosy has been seen, even of late years, in this country in persons never exposed to any of its external causes; and to the like of this we may refer, I think, some of the rare cases which defy all efforts to refer them to any combination of types of disease now prevalent.

Now, I half wish that I could escape from the necessity of testing my doctrine by my facts; but as I have often asked myself, so others may ask, how can the cases of rare diseases of which I have been speaking, be explained as the results of morbid conditions changing and combining in transmission from parents to offspring. In the phlebitis we may often trace a variation from the customary type or standard of the very old and heritable disease, gout. In many cases its relations to typical gout are clear. The patients are members of gouty families, and in many of them other signs of gout are evident, either coincidently with the phlebitis or at other times; it has, in short, all the evidences of being one of the many forms of what is called "incomplete gout." But, for a reason why this variety of gout settles (if I may so speak) in veins, especially in those of the lower extremities, I can only guess at a convergence of inherited dispositions both to a modified form of gout, and to some condition of veins rendering them, among all the structures, the most sensitive to the gouty process. Certainly it is not accident which determines the disease to the veins, for this disease "runs in families." I know of its occurrence in two brothers and three of their cousins; and I have heard Sir Charles Locock tell of four sisters who had phlegmasia dolens and whose father had crural phlebitis.

I am conscious that this is little more than guessing, and for the osteitis I must guess still further; or, rather, let me say that, to the furthest bounds of propriety, I must exercise that use of the imagination which may happily discern a way towards the truth. I imagine, then, that a likeness of the osteitis deformans to several other diseases may indicate a combination, in definite proportions, of transmitted dispositions to those diseases; a combination which has become possible by changes of the type of one or more of them. First, it shows some relationship to mollities ossium and rickets, for, though it is an inflammatory disease, which they are not, yet the softening which permits of the curving of the bones is distinctive, and hardly occurs in any other form of inflammation of bone in middle or later life. And, again, the relation of the osteitis to rickets and mollities ossium is notably indicated in the porous thickening of the skull, which is found in some instances of them all, and which is well marked in our specimens of genuine rickets from erroneous diet in young lions and young monkeys. Further, there appears some relation to gout, for some of the cases have known inheritance of gout, and instances are sometimes seen, in typically gouty persons, of a single bone having all the characters of the osteitis, though all the other bones appear healthy. Such a one is this femur, for the opportunity of showing which I am indebted to Mr. Bowlby of St. Bartholomew's. There is a likeness, also, it may be said, to the osteo-arthritis and other forms of rheumatic gout in the remarkable maintenance of good general health during even many years of a painful and crippling inflammatory disease; and, further, there appears some relationship to cancer in the singular frequency with which cancer or sarcoma occurs in the healthy bones or other parts of those who have suffered for many previous years with osteitis deformans.

Thus, I imagine, by inherited dispositions, accumulating and combining or converging in definite proportions, this disease may be produced. I would try to imagine the genealogy of M. Charcot's disease, but that I have too little clinical knowledge of it. I can only suggest a combination of osteo-arthritis with syphilis chiefly localised in some spinal nerve centre; but I believe far better suggestions may be made by those who, suspecting a combination of diseases rather than many radiating from one source, will carefully study the essays of Professor Charcot and Dr. Buzzard's admirable clinical lectures on Diseases of the Nervous System. Besides, I may seem to have guessed already more than enough. Let me, therefore, say that even if my guesses are wrong, my error cannot weaken the probability of the belief that these and other rare diseases of like kind are instances of settled varieties of diseases, severally due to variations and convergence of morbid conditions in hereditary transmission. And if this be in any measure true, or even not more than a reasonable hypothesis, then it must be of great importance that we should know much more than we yet do of the variations which, in progress of time, diseases, or certain examples of them, may undergo; of their deviations in a gradually increasing number of instances from typical or standard forms; their acquirement in those instances of other comparatively fixed and long-abiding characters; of the occasional disappearance of old forms of disease, and the evolution of new ones. Such variations in diseases should be studied as Darwin studied the variations of species. Let me be clear in saying, as Darwin studied; for in the pursuit of new knowledge he may be a model to all, as he has been to me so far as I could imitate him. He, as I know, would have studied these things, not by deduction, as from a law exactly formulated and from which he could trace the course of every change, but by a most careful collection of facts, facts to be seen in specimens and read in full records, and stored in museums, and by a study as complete for every case as if no law of evolution had ever been discovered.

Let me add that the study of these variations of diseases is not one of mere pathological curiosities. It may be of great practical utility; let me show how, if only that I may provoke some to pursue it vigorously to whom mere pathology is not attractive. We hear much, and often, of the uncertainty of medicines; of disappointments in the use of this or that supposed remedy; and substances which have long been in good repute for the treatment of this or that disease are spoken of with disrespect. It need not be questioned that in many cases the belief in the utility of a medicine has been maintained by completely erroneous observations. Such was the belief in the utility of infinitesimally small doses of anything ever yet swallowed. And other beliefs less evidently absurd may have been nearly as ill-founded. But there are many of which this is not to be said. It cannot be doubted that bromide of potassium is often very useful in epilepsy; yet sometimes, as we say, it fails; or that guaiacum is useful in some cases of chronic rheumatic arthritis, and is in others very disappointing; or that arsenic sometimes does and sometimes does not do good in cases of lymphadenoma. I suppose there is not a medicine in the pharmacopœia which does not sometimes disappoint him who gives it hopefully; not one which is not, therefore, spoken of with contempt or blame, as if it were a responsible agent convicted of default. But here is an unfair imputation. It is not these medicines which are in fault but ourselves. That which some call the fallacy of therapeutics is generally the fallacy of diagnosis. To state the facts roughly, we suppose cases to be alike which are really different; and, very naturally, the medicine that does good in some of them is useless in others. For example, in the group of cases which I chiefly have in view, we do not

always discern when a disease has varied so far from its usual type that it is no longer amenable to its usual remedies. A better diagnosis must precede a better therapeusis. We need not only the diagnosis between diseases essentially different, but that between the different and varying forms of each of those which we call by a generic name; and beyond this, we need a more exact power of what may be called analytic diagnosis; for there are few simple cases, and in those which are not simple we need to be able to discern all the components, and the proportions in which they are mingled or combined. Better treatment will follow better diagnosis, and better diagnosis will certainly follow a more exact pathology.

Let me illustrate this with an instance which is besides of some interest in the study of the variations of transmissible diseases and of the utility of museums. Questions are often asked as to changes which syphilis may, in course of time, have undergone; and, especially, whether internal organs were always, as they are now, liable to its attacks. It is hard to answer such questions on the evidence of any existing records; indeed, I might cite the whole history of syphilis as an instance of the insufficiency of records for the tracing of the natural history of diseases. But here is something suggesting what museums may do: a portion of muscle preserved by Hunter, and at least a century old, in which are morbid changes which may be safely referred to syphilitic gumma. Probably similar evidence may be found in other museums; and there are other facts significant of the existence long ago of these internal syphilitic diseases, as well as of the improved treatment following better diagnosis. Fifty years ago, at the beginning of my professional studies, it was the custom, as it long had been, to give mercury not only in all recognised syphilitic cases and in most acute inflammations, but in a large number of cases of which one could scarcely say more than that they were all chronic and all obscure. Especially there were many such cases of what were considered chronic inflammation of the eyes, and of the brain and spinal marrow, the liver, and the testicle. To all of these cases it was customary to give mercury till, as one said, "the mouth was touched," and thus some were cured, and some uncured, and some harmed. The cures were enough to keep the mercury in such good repute that it was given more and more generally; and then the disappointments, as they were called, became too many, and the mercury was blamed, and was almost disused for chronic inflammations. But, meantime, a more exact pathology, a pathology more exact both in its morbid anatomy and in its clinical studies, was discovering the previously unsuspected syphilitic diseases of internal organs; and with this better pathology there came a better diagnosis, and with the better diagnosis a more judicious use of mercury, and good reason to believe that the chronic and obscure cases which mercury used to cure were those of syphilis overlooked. The case is an exemplary one of the relations between the true pathology and the right treatment of diseases, exemplary not only for encouragement, but for method of study; for the study was both clinical and anatomical, in the living and in the dead, with records and with specimens. Such must be our study of all the cases which I have chosen to speak of—the cases in which diseases deviate from their usual type, or combine in various proportions, after the manner of hybrids and mongrels or new chemical compounds. But there are some rules in study which are especially applicable to these cases.

1. We should very carefully study all cases which are not according to an admitted type. We should study all exceptions to rules; never thinking of them as unmeaning or accidental. Especially, we should never use, in its popular, but wrong translation, the expression "exceptio probat regulam"; as if an exception to a rule could be evidence that the rule is right. If we use it, let this be in its real meaning; translating it, as surgeons should, that an exception probes a rule, tests it, searches it—as the Bible says we should "prove all things"—to its very boundary. In this true meaning the words may be an excellent motto for the study of all diseases that deviate from types.

2. We should look out for indications of the existence in the same person of two or more morbid conditions or dispositions such as may be derived from both parents or from several ancestors. For, as in plants and animals there are hybrids and mongrels, or, as in chemistry, many compounds and mixtures, so are there in diseases. We see them in the multiform varieties of what we have to call rheumatic gout; in gout crossed with scrofula, and syphilis crossed or mingled with scrofula or with gout. It is often not difficult to discern some of these combinations among our cases, and I know few things in practice more useful than to be able, even in some instances, to adjust our treatment to the proportion of each disease in the compound. But we may be sure that there is much more to be learned in this direction; and it is best to believe that we rarely have to do with a simple and unmixed morbid constitution. There are few worse habits in practice than that of commonly saying of our case "It is all gout," and of another it is all scrofula, or all syphilis. We might as well say of any Englishman that he is all Norman, or all Anglo-Saxon, or all Celt. We may, indeed, sometimes see persons who appear to be as types of races unchanged in many centuries, but in practice we had better study every man as, for better for worse, a composite of many ancestors.

3. We should have for all these cases a much more complete and exact study of all the personal conditions of disease than is now usual. Of course this should include all that can be learned of each patient's family history; though there are few parts of medical inquiry more fallacious than this often is; and at the best it will need, besides, the exactest study of the patient's self. Perhaps the brilliant success which has been achieved by the recent studies of disease-producing organisms or other materials acting on us from without—a success not equalled in any other field of medical inquiry—has made some think too little of those changes within ourselves which occur in such ordinary conditions of life that they may be called spontaneous. Yet these are not less important in the production of diseases, and these must be studied; just as in agriculture soils must be studied as well as seeds. This is true even in respect of those diseases whose essential causes are most evidently external, even of those which are due to specific contagia; their germs or seeds, if I may so speak, will not germinate in an unfit soil. I suppose there is not a day in which most of us do not inhale or come in contact with the germs of some frequent or contagious disease; but they do not germinate in us any more than do the seeds of tropical flowers in our streets or in the fields to which the wind scatters them; we do not offer the fitting soil. And even among those in whom they do germinate, the product varies according to the soil. And the study of this soil, this living soil, is yet more necessary in respect of diseases which come, in part or wholly, by inheritance; for it is in each as personal and distinct as any other constituent of personal character, and the study of it must be intimately personal, with an exact analysis of every disposition to disease. The aim of pathologists in this direction should be for knowledge like that of the keen family practitioner, who, as he says, knows the constitution of every member of a family.

All this is equivalent to saying that these variations in diseases must be studied both in practice and in scientific pathology. It is hopeless that either a practitioner who thinks lightly of pathology, or a pathologist who thinks lightly of observant practice, should do more in the study of these questions than attain to that measure of partial truth which is often as deceptive as error. Each must be tested by the other. The living and the dead must be alike and equally studied; and the dead must be studied in exact observations, with accurate records, and especially with museums.

I need not dwell on the value of good records, good descriptions, and good photographs, or other representations of diseases; but they never have been and, probably, never will be, enough. We need, with them, museums in which changes of structure may be preserved for repeated and revising study and comparison. For instance, in regard to the group of diseases of which I have been speaking, we ought to have in our museums specimens in which we might study all the gradations of change of structure from type to type, all the changes due to mingling of forms, all varieties of diseases, all hybrid forms. We need to be able to study all these things, as the naturalist or the comparative anatomist needs his specimens; not only for teaching what is already known, but for continued re-examination and continued additions to his own knowledge.

And for complete study we must have large museums showing the coarse naked-eye characters of diseased structures. I am sure no one will think me likely to depreciate the microscope; it has added, and will continue to add, more than can be told to our knowledge; but it has not diminished the value of other evidence; and in patho-

logical anatomy, as in all our sciences, there are many instances in which the naked eye sees facts with more meaning than the microscopic one can.

This is, especially, true in the case of morbid structures resulting from nearly allied diseases, and, therefore, especially true for those of which I wish to urge the study. In morbid structures as in species the nearer the alliance the less are the differences to be found in minute structures, and the more must we depend for distinctions on the study of visible shapes, and sizes, and constructions. I suppose that we could not with the microscope distinguish the human skeleton from that of the monkey; certainly, we could not distinguish one skull from another in all those varieties of national form which are collected in our museum. And so it is in many instances of morbid bone formation. I doubt whether microscopic examination could detect characteristic differences in each of this group of specimens. With the naked eye it is sure that this is a syphilitic node on a tibia, and this a growth beneath a chronic ulcer over the shin, and this a pedicled exostosis, or ossified cartilaginous outgrowth from the shaft of a long bone, and this an instance of osteo-arthritis, and this a portion of the skeleton of an osteo-sarcoma or osteoid cancer.

Moreover, it is to be observed that in morbid structures, as in those that are natural, in the same proportion as the aggregated elements of embryonic structures acquire their complete and final form, so do the bodies composed of them acquire distinctive shapes and methods of construction plain to the unaided senses. The ova of many species may seem alike both in outer shape and in their component elemental structures. But in proportion as these structures are differentiated, and developed into their higher and abiding forms, as into nerve fibre, and muscular fibre, and the rest, so the larger characters of even the nearly allied species—the characters of shape, and size, and appropriate construction of the whole body, and of each part of it—become more and more different; and these constitute the real distinctive characters of each species.

And so it is in morbid products. The acquirement of distinctive shapes and methods of construction coincides with the development of elemental forms. For example, in these sarcomata are only the lowest elemental structures, round cells, spindle cells, and shapeless plasma; and the masses thus combined are shapeless, featureless, decisive by negation. But in these fatty and fibrous and cartilaginous and bony tumours, in which the elemental structures have advanced to higher forms, the masses which they severally compose are almost as characteristic and distinct in visible shape and construction as are the several normal organs of the body.

In every case, then, both the largest and the smallest characters should be studied. The naked eye can discern one set of facts, the aided eye another; both are essential to complete knowledge; no one should be content with either, for neither is alone sufficient. So we must have large specimens as well as small ones, and certainly large ones for the study of the gradual variations of diseases as they deviate from typical forms, and become variously mingled.

And now, as I come near to my term of time, let me, as is customary in certain other places, conclude with an earnest appeal to your liberality. We want liberal contributions, not of money, but of specimens to our museum. We want specimens of many kinds; of course we want whatever is rare, but not these alone; we want some to complete our series of typical specimens; and, to keep to the chief subject of my lecture, we want the opportunity of choosing among many of what are called "bad specimens." We are all too ready to collect what are called good specimens as being well-marked instances of the standard characters of diseases, and to put aside as "bad" those which deviate from those characters, just as, clinically, we speak of good and bad cases of a disease. Of course, good specimens, typical specimens, must be at hand for the teaching of pupils who have to study illustrations of the accepted descriptions of diseases; but it is among bad specimens, even as it may be among exceptional cases, that those who are past pupilage, though they have not ceased to be students, may study the variations of disease. I ask the more boldly for contributions to the pathological collection because of its present satisfactory condition and the activity of work in it. You will soon see it in the repaired and renovated building. Looking at the number and value of the specimens and the wide range of pathology which they illustrate; looking at the interest of the history of our science which is told in many of them; at the memorials of Hunter and Matthew Baillie, of Astley Cooper, Liston, Howship, Lawrence, Hammick, Fergusson, Hilton and many more; looking forward to what the museum will tell of the researches and skill of those who are still with us, and among whose names I venture to feel sure, Mr. President, that none will take precedence of your own, while men study the specimens with which your skill and just audacity in operating have enriched the series of diseases of the ovaries and uterus: looking at all these things, and then at the perfect order and condition in which the specimens are preserved, I feel that the collection is one which all we members of the College may feel personal pride in calling our own, and should feel a personal duty to enrich. And its utility is being constantly more appreciated. I have been often made happy by the contrast which I have seen while working at the new edition of the catalogue. While I was writing the last edition, between thirty and forty years ago, scarcely a student ever entered the museum. Hour after hour I sat alone; I seemed to be working for no one but myself, or for nothing but the general propriety that a museum ought to have a catalogue, though no one might ever care to study with it. Now, and for some years past, a day rarely passes without many pupils and others being at work in every part of the museum.

All this is good; but much more is to be done. Our museum should be, even more than it is, the centre in which all pathologists may find help in searches after that which is not yet known; in such searches, for example, as may lead to a complete knowledge of the variations of diseases. For many years, even from the beginning, the anatomical and physiological departments of our museum have been not only a noble collection of specimens, but, through the renown and learning of its conservators, a great centre of teaching. Scientific men, especially comparative anatomists and anthropologists, have known that here, if anywhere, they could find whatever help a museum and a master in those sciences could give. A fortnight ago the President of the Royal Society, presenting one of the royal medals to Prof. Flower, said: "Professor Flower has been for more than twenty years conservator of the museum of the Royal College of Surgeons; and it is very largely due to his incessant and well-directed labours that the museum at present contains the most complete, the best ordered, and the most accessible collection of materials for the study of vertebrate structures extant."

It is not for me to praise the pathological collection with similar words. But great as may have been its utility hitherto, we may be confident that it will henceforth be more useful than ever. In the vast increase of the biological sciences it became impossible that one man should be nearly complete in the knowledge of both natural and pathological anatomy. I say impossible. I believe there is not such a one living; if there could have been one it might have been Mr. Flower. Now, we may hope that labours as "incessant and well-directed" as his will be devoted especially to the pathological collection.

It is known to many of you that Sir Erasmus Wilson, in his usual liberality, gave the College £3000, of which the interest should be spent in the promotion of pathology; and he agreed that this would best be done by helping to the appointment of a curator of the pathological department of the museum; and we have an admirable one. Mr. Eve is a worthy colleague and helper of Mr. Flower, excellent like him not only in knowledge, but in that which is even more rare, the love of museums, and of all that belongs to their maintenance and illustration, even to the making of catalogues. In all these good qualities he has distinguished himself at St. Bartholomew's. I believe that we may rely on him for making so good use of the museum, and of all that can be brought to it, that the College shall be the chief centre for the study of pathology, even to the furthest point at which it can be studied in specimens of diseased structure. I beg your help that he may be so; and if I shall have helped to-day to this good result, the first Bradshawe lecture in our College will have well fulfilled the purpose of its founder.

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A FIRE, fortunately unattended with loss of life, broke out a few days ago in the Rochefort Hospital, France. A portion of the left wing and much valuable property were destroyed.

# Lectures
ON
# PHTHISIS.

*Delivered at Charing Cross Hospital,*

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## LECTURE III.

*Question of distinct varieties of Phthisis. — Clinical varieties due to differences in the pathological tendencies of the pulmonary consolidation. — Consideration of the lung lesion, and of the symptoms which accompany it. — The characters of the pulmonary consolidation; the extent and distribution of the consolidation; the quiescent or progressive nature of the consolidation; the predominating characters of the consolidation, and the physical signs which accompany them. — Secondary changes. — Resolution. — How far is the complete cure of phthisis possible? — Difference between resolution and arrest of disease.—Those cases in which resolution can take place.— Softening and excavation.—Fibroid overgrowth and bronchial dilatation.*

GENTLEMEN,—In our consideration of the diagnosis of Phthisis, we have thus far been concerned only with the simple recognition of the existence of this disease. This, as we have seen, is for the most part easy, and only in exceptional cases presents real difficulty. The simple recognition of phthisis, however, is but a preliminary and comparatively small part of our inquiry. In a disease which presents such manifold clinical features—some cases terminating fatally in a few weeks, whilst others, which perhaps at the first appear much more grave, last for years, the patient enjoying comparative health—some attempt must be made at the onset to form an opinion as to its probable course. Here we are met by the question:—"Are there distinct varieties of phthisis which we can so clinically distinguish as to be able to say in any given case that the disease will be accompanied by certain symptoms, exhibit certain pathological tendencies, and run a certain course? To this, I think, we must answer, No; the answer which our previous consideration of the pathology of the disease will have led you to anticipate. Our opinion as to the probable course of phthisis must be based upon a careful consideration of each individual case; and we are not likely, I believe, to be aided in our prognosis by attempts to make artificial divisions of the disease.

The clinical varieties of phthisis depend for the most part upon the pathological tendencies of the pulmonary consolidation, and having ascertained the existence of the disease, we must endeavour to form an opinion as to what these tendencies are. In order to do this, we consider both the lung lesion and the symptoms which accompany it.

### THE LUNG LESION.

A careful consideration of the pulmonary lesion as it is revealed to us by a physical examination of the chest will naturally be made in all cases. We must take into account here:—(1) The characters of the consolidation; (2) the extent and distribution of the consolidation; and (3) the quiescent or progressive nature of the consolidation.

I. *The Characters of the Pulmonary Consolidation.*—The characters of the pulmonary consolidation must be considered with reference to the kind of change which predominates, and to the secondary alterations—resolution, softening, and fibroid induration, which the consolidation undergoes. Here I must ask you to bear in mind some of the histological facts which engaged our attention in a preceding lecture. Remember, firstly, that phthisical consolidation of the lung consists of three kinds of change, which tend to be associated, although in very different degrees; secondly, that which of these changes predominates and the secondary alterations which the consolidation undergoes, depend mainly upon the intensity and duration of the phthisical process; and, thirdly, that there is no necessary relation between intensity and tendency to spread, some of the most intense processes being often the most localised, and *vice versâ*.

The kind of change which predominates can usually be only approximately determined, inasmuch as intra- and extra-alveolar changes are, as we have already stated, so constantly associated. At the same time the consolidation is in many cases so markedly either intra- or extra-alveolar, that we are able to speak with tolerable certainty on this head; and as the outcome of the disease in the two cases is often very different, this differential diagnosis is important.

Our opinion as to the predominating characters of the pulmonary consolidation will be based upon the abnormal physical signs, and inasmuch as these characters are so largely influenced by the intensity and persistence of the phthisical process, these signs will at the same time be valuable indications of the mode of onset and duration of the disease. The diagnostic value of physical signs in this twofold direction I have endeavoured to tabulate for your guidance. Understand, however, that owing to the association of the several changes, the following statements must be accepted as only approximately true.

#### *A.* CONSOLIDATION INTRA-ALVEOLAR.

*Physical Signs.*

1. Dulness without retraction, the dulness varying according to the extent and situation of the consolidation.
2. Respiration impaired, deficient, slightly harsh or bronchial in character, according to the degree of the consolidation.
3. Dry or moist small crepitant râles, heard especially at the end of deep inspiration, and often only after cough.

*Clinical History.*

As contrasted with *B* and *C*, onset of disease often less insidious, and lung symptoms more pronounced. Physical signs of intra-alveolar consolidation without those of the retraction met with in *B* and *C* always indicate that the disease is in an early stage.

#### *B.* CONSOLIDATION INVOLVING MAINLY ALVEOLAR WALLS.

*Physical Signs.*

1. Dulness usually less pronounced than in *A*. Often slight retraction in the earliest stages, most commonly indicated by some diminution in the area of supra-clavicular resonance.
2. Respiration slightly deficient, but less so than in *A;* harsh and slightly bronchial in character.
3. Dry and moist small crepitant râles often entirely absent; and if present, obscure, scanty, and only occasionally audible.

*Clinical History.*

As contrasted with *A* the onset of the disease is usually more gradual, and the lung symptoms less pronounced. There is often more marked failure of the general health. The progressive tendency of the consolidation is greater, and the prognosis generally less favourable.

#### *C.* CONSOLIDATION CONSISTING LARGELY OF INTERLOBULAR CONNECTIVE TISSUE.

*Physical Signs.*

1. Dulness with marked retraction. Percussion note often tubular in quality. Retraction frequently sufficient to cause encroachment of opposite lung across the middle line anteriorly, displacement of heart, &c. (These signs present without the existence of excavation.)
2. Respiration markedly bronchial, or even cavernous.
3. Dry and moist crepitant râles absent, unless, as is often the case, associated with alveolar changes.

*Clinical History.*

Fibroid overgrowth is in the great majority of cases secondary to *A* and *B*, and its existence indicates that the disease is in a more or less advanced stage.

The secondary changes which take place in the pulmonary consolidation—resolution, softening with excavation, and fibroid overgrowth—are obviously of the greatest importance as influencing the clinical history of the disease. In most cases of phthisis all these three changes take place, although in very different degrees; some portions of the consolidation undergoing complete resolution, whilst in others the lung

tissue is destroyed, and in others again the softening process becomes limited by a fibroid growth. These several changes we must consider separately, and the physical signs which accompany them we may again indicate in a tabular form.

*Resolution.*—Here we are met by the question:—How far is the complete resolution of the pulmonary consolidation, in other words, the complete cure of phthisis, possible? That in many cases much of the consolidation undergoes resolution there can be no doubt; but unfortunately the resolution is so incomplete, and so much residual lesion is left, that the progress of the disease is not materially influenced by it. At the same time most of those who have had much experience of phthisis will, I believe, admit that cases are occasionally met with in which resolution is practically complete, the lung being left almost as little damaged as after an attack of acute pneumonia. Understand that we are speaking now of resolution of the consolidation, and not of arrest of the phthisical process. These two modes of favourable termination it is important to distinguish. Arrest of the phthisical process with residual lesions is sufficiently common; but such residual lesions, consisting usually of some fibrosis with slight bronchial dilatation or encapsuled caseous products, although they may remain permanently quiescent, constitute elements of danger which do not obtain where the resolution is more complete. In considering the question of resolution, the predominating characters of the pulmonary consolidation become of the utmost importance, inasmuch as of the threefold lesion of phthisis it is the intra-alveolar products which are alone capable of absorption, and it is therefore those cases of phthisis only in which the consolidation is mainly intra-alveolar that resolution is possible. Intra-alveolar changes are, as we have seen, often most prominent in those cases of phthisis the onset of which is the least insidious, those cases in which the consolidation is the most rapidly induced, and the lung symptoms are the most pronounced; and it is just these cases which often have the most favourable termination, the consolidation disappearing with little or no residual lesion. Such cases, however, bear in mind, can only terminate in resolution, provided (1) the intensity of the phthisical process is not too great, and (2) the duration of the process is not too long. Any marked intensity or prolongation of the process must invariably lead, as our previous considerations will have led you to understand, to more or less cellular infiltration of the alveolar walls, and consequent destruction of lung tissue. In speaking of resolution, you will remember that though in some few cases the lung appears to be completely restored, much more commonly resolution is so far incomplete that some slight shrinking and alveolar thickening are left.

The physical signs met with in those cases in which the consolidation is invariably intra-alveolar we have already indicated. It remains to consider here those signs which in a case of intra-alveolar consolidation accompany the process of resolution. These signs may be thus tabulated:—

INTRA-ALVEOLAR CONSOLIDATION—RESOLUTION.

1. Gradual disappearance of dry and moist small crepitant râles. Diminution in the percussion dulness, and in the deficiency of the respiration.

2. In some cases the above-named signs of improvement are soon followed by the disappearance of all abnormal physical signs; but more commonly, owing to slight shrinking and induration of the lung, there remains slight diminution in the area of supra-clavicular resonance, with perhaps slight deficiency and harshness of inspiration. These signs may also ultimately disappear owing to the development of some compensatory emphysema.

*Softening and Excavation.*—This is the most characteristic secondary change of phthisis, constituting the so-called second and third stages of the disease. It is hardly necessary for me here to remind you that these stages of phthisis have reference only to the condition of the pulmonary consolidation, and have little if any prognostic import, the life of a patient in the third being often infinitely more valuable than that of one in the first stage of the disease. The process of softening is most marked in those cases in which the lesion is mainly intra-alveolar, those cases in which, as we have seen, the consolidation is often the most rapidly induced. The physical sign which is the most characteristic of this process is that liquid, high-pitched, crepitant râle known as moist crackling. Where the consolidation is more slowly developed, and the changes are rather extra- than intra-alveolar, the process of softening is more gradual and consists in a slow molecular disintegration. In such cases moist crackling may be absent, and there may be nothing to indicate the destructive process until signs of excavation declare themselves. It is during this period that elastic tissue may be discovered in the sputa, and its presence is valuable corroborative evidence of the destruction of the lung. The outcome of the softening process is cavity formation. This is effected by a communication being established between the softened portions and a bronchus through which some of the softened matters are expelled. In most cases the softening commences at several separate centres, which increase and gradually coalesce. The physical signs of excavation now become apparent, provided the cavity be of sufficient dimensions. It is probable that a cavity must be at least half an inch in diameter to give diagnostic physical signs. These signs will vary considerably according to the size and situation of the cavity, the amount of secretion it contains, and the size of the bronchus with which it communicates. They comprise gurgling râle, cavernous respiration, pectoriloquy, &c. A cavity once formed may continue to extend, or the destructive process may become arrested. In the latter case the cavity may gradually dry up and contract, or it may continue to secrete purulent liquid. It may also become the seat of secondary ulceration. These several changes give to the disease important clinical features which must engage our attention on a future occasion.

*Fibroid Overgrowth.*—This we have already described as invariably present in all cases of phthisis the duration of which is sufficiently prolonged, and in these it may constitute the predominating constituent of the pulmonary consolidation. As it appears, however, to be always preceded by other inflammatory lesions, we must allude to it here amongst the secondary changes. The physical signs which accompany it we have just considered. They are in the main those indicating consolidation with diminution in the size of the lung, and more or less bronchial dilatation. This dilatation of the bronchi, a most important result of pulmonary fibrosis, has not yet engaged our attention. It occurs to a greater or less extent in all fibroid lungs, and from the great liability of the dilated bronchi to catarrhal processes, and the difficulty of expelling the secretion from the enlarged and rigid tubes, its existence gives marked features to the disease. The importance of fibrosis in encapsulating and limiting the more localised phthisical lesions we shall have to consider when speaking of the quiescent and progressive character of the consolidation.

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THREE CASES OF

# DEPRESSED FRACTURE OF THE SKULL, IN WHICH THE TREPHINE WAS SUCCESSFULLY APPLIED.

BY H. BLANC, M.D.,

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CASE 1. *Depressed Fracture of the Skull; Slight Concussion of the Brain; Localised Inflammation of the Brain and its Membranes; Progressive Paralysis of the Face; Application of the Trephine; Recovery.*—Appa Nartha, a Syce, aged thirty, a Hindoo of the Maratha caste, was admitted into the clinical surgical wards of the Jamsetjee Jejeebhoy Hospital on December 15th, 1880, suffering from a fracture of the skull. It appears that the horse Appa was leading suddenly reared and struck him on the forehead with its hoof. The patient fell to the ground insensible, and remained in that condition for a short time. Considerable hæmorrhage is said to have taken place. After a while, when he had recovered consciousness, he was unable to walk, even when assisted; he felt confused, his sight was dim, he did not recognise his friends for a time, and he had entirely forgotten how the accident occurred.

On admission, two hours after the accident, his condition was as follows. The face was pale and anxious; the pupils slightly dilated; the skin was hot and dry; the pulse slow (60), regular; he was conscious, and answered questions rationally; he complained only of feeling giddy and great weakness. On the forehead there was a contused wound, beginning just above the left frontal eminence, and running obliquely downwards

towards the right side. The bone was exposed and fractured; a depressed fragment being distinctly felt with the probe; the parts around were swollen and painful; the right upper eyelid was ecchymosed. He progressed favourably for the following six days, but on the morning of the seventh day (Dec. 22nd) he complained for the first time of pain in the head. His sleep during the preceding night had been disturbed. There was some dyspnœa present, with increased frequency of respiration, and at the base of the right lung some dulness on percussion and increased vocal resonance were detected. Temperature 100°; pulse 60. The wound was dry-looking and of a dusky colour. The following day he was better. The dulness at the base of the right lung had given way to treatment.—Dec. 26th: The pain in the head has been increasing gradually, and is now very severe; for the first time this morning some ptosis of the left eyelid is noticed. The breathing is shallow and hurried, although no physical sign of disease of the lung can be detected. Temperature normal; pulse 60, equal, somewhat compressible. On Dec. 27th the attendant reported that the patient had passed a very bad night. The left angle of the mouth was depressed, and there was marked flattening of the whole of left side of the face. The wound on the forehead looked unhealthy, discharging sanious pus. Temperature normal; pulse 60. The progress of the case being decidedly unfavourable and localised, inflammation having been diagnosed, I decided on applying the trephine and removing the depressed fragments. The patient being placed under chloroform, a crucial incision was made, and the flaps, which included the pericranium, were dissected back. A depressed fracture was then found situated at the line of union of the frontal bones, but involving more the right bone. The fracture measured half an inch in breadth and one inch in length. All bleeding having ceased, and the parts having been thoroughly cleaned, a small trephine was applied, resting partly on the healthy and partly on the fractured bone. A portion of the bone having been thus removed, the depressed fracture was found to consist of several fragments which were easily removed, but around the fracture several detached fragments were also found, these latter belonging to the inner table of the bone, and some of them had penetrated through the dura mater into the brain. All of these were removed. A careful examination was then made to ascertain that no pieces had been left, when a little above the upper angle of the fracture a large fragment about half an inch in length was detected penetrating into the longitudinal sinus. It was very carefully removed; nevertheless a terrible gush of blood followed. I at once introduced my index finger into the wound and placed it on the spot whence the blood was flowing, and did not remove it until the hæmorrhage had entirely ceased. The parts were then cleaned and the flaps brought together by sutures, a fine drainage-tube having been previously introduced. The wound was dressed antiseptically. On the following morning (Dec. 28th) a great improvement was found to have taken place in the case. The temperature was normal; the pulse 72, of fair volume and regular; the respiration regular, 22; the ptosis of the left eye was much less marked, and the paralysis of the face had disappeared. He appeared cheerful, and answered questions rationally; he had quite lost the pain in his head.

For a while he progressed very favourably, but on Jan. 9th, 1881, he complained of difficulty in swallowing; there was some rigidity in the muscles of the jaw and neck; he vomited several times during the day; his tongue was foul at the base and red at the tip; his look vacant and stupid, and he did not answer questions readily; there was some return of ptosis of the left eyelid. He complained of no pain, and the wound looked healthy. On the 11th his condition was somewhat worse, and during the night he had an epileptiform convulsion. On the 12th he appeared somewhat better at the morning visit, but in the afternoon his condition became very critical; he was comatose; breathing hurried; pulse thready, 118; temperature 102·4°. During the following day (January 13th) he seemed several times on the point of death. Incontinence of fæces and of urine; in deep coma, from which he could hardly be roused; the pulse at times imperceptible. On the 14th some slight improvement, but still very bad. On the 15th the improvement was more marked; he was again conscious; pupils still dilated, but less so; he could open his mouth better. Vomiting, which had been more or less persistent since the 9th inst., now ceased. Pulse 108, more full and regular; temperature 98·8°. The wound on the forehead, which had nearly healed, was found to be raised and pulsating, and the dressing was covered with a considerable amount of healthy pus. On the 20th he had made great progress towards recovery; the ptosis of the left eyelid had again disappeared. Temperature normal; pulse 86. He was quite conscious; answered questions rationally, slept at night, and asked for more food. Day by day he gradually improved, gained strength and flesh. His nights were good, and he seemed to enjoy his food; he was in good spirits and cheerful. A small pulsating tumour that had formed at the seat of the injury gradually increased in size, distending and partially separating the recently united skin flaps.

On the 1st of March the hernia cerebri was smaller, the granulation on its surface had healed, but it was still the seat of marked pulsations. He was soon able to take exercise about the wards and verandahs. By the 20th of March the wound on the forehead had partially cicatrised, and pulsations were no longer visible. He was discharged perfectly well on the 1st of April.

Some weeks ago I made inquiries regarding him, as I wanted to see him. His brother called at the hospital and told me that our patient had gone to his village on leaving the hospital, where he was still residing in the enjoyment of good health. He complains only of not being able to carry burdens on his head as he had formerly been able to do.

CASE 2. *Depressed Fracture of the Skull; Compression of the Brain on its Convex Surface; Partial Paralysis and Contractions; Application of the Trephine; Recovery.*—Pourbai Souter, a Mussulman woman of the Khoja caste, aged twenty-three, was admitted into the clinical and surgical wards of the Jamsetjee Jejeebhoy Hospital on Dec. 15th, 1881, suffering from a depressed fracture of the skull, caused by a box falling on her head from the third storey of a house as she was walking in the street. She was taken to the hospital immediately after the accident. On admission her condition was the following:—There was a lacerated wound, some two inches in length, situated on the right parietal bone, near its centre, and extending backwards towards the occipital bone. The bone was fractured in the same direction as the external wound. The pupils were dilated, the left more than the right. Pulse 102; respiration 24; temperature 98°. There was no loss of consciousness, and no paralysis; but she was somewhat hysterical, and still under the influence of shock.

On the following day there was slight reaction. The temperature rose to 101·4°, and the pulse to 110. She was somewhat restless and delirious. There was retention of urine and constipation. On the 18th her condition was much the same, but some paralysis of the left lower extremity was noticed. On the 20th she experienced a rather severe epileptiform convulsion. On the 21st she was somewhat delirious, and during the night had another severe epileptiform fit. When conscious she complained of a severe pain in the head. There was increased paralysis of the left lower extremity, and some loss of power in the left arm. On Jan. 11th her condition was still worse, the loss of power in the lower extremity was more marked, and for the first time attended by muscular contraction. The arm was quite powerless. During the night she was very excited, but at the morning visit she was drowsy and listless.

In presence of the progressive and increasing paralysis of the left arm and leg, to which contracture was now superadded, the application of a trephine to the fractured bone was decided upon, and the patient being placed under the influence of chloroform, a crucial incision was made over the scalp wound. The flaps having been dissected, a small trephine was applied partly on the healthy and partly on the fractured bone, and on removing the circle of trephined bone a large fragment was found to have been pushed and firmly wedged beneath the sound parietal bone. This piece was removed by forceps. The dura mater at the spot appeared rough and congested, but it was not lacerated. The wound was united by suture, a fine drainage-tube being introduced. The wound was dressed antiseptically.

Jan. 12th.—The patient passed a good night. Moderate reaction present; pulse 104, temperature 101°. All symptoms of paralysis have entirely disappeared; she is able to empty her bladder without assistance. During the next forty-eight hours moderate reaction persisted, and she suffered also from chloroform vomiting; otherwise progress was most favourable. On the 18th the report of the case is the following: Temperature normal, pulse 76, of good volume; bowels regular, sleeps well, and asks for food. She can move her arm and leg freely. The wound looks very

healthy, and is uniting. The further progress of the case was steady and good. She gradually regained her strength, and she was soon able to walk about the wards and in the gardens. When she left, on Feb. 2nd, the wound on the scalp was firmly united, and she was altogether in perfect health.

CASE 3. *Depressed Fracture of the Skull; Concussion of the Brain; Contusion and Laceration of the Meninges; Acute Meningitis; Application of the Trephine; Recovery.*—Rookmee Etaba, a Hindoo girl aged twelve, was admitted in the clinical surgical wards of the Jamsetjee Jejeebhoy Hospital on March 31st, 1882, suffering from fracture of the skull and other contused wounds, the result of a fall. Of somewhat weak intellect, and subject to epileptic fits, she was standing on the summit of a steep hillock (Belvidere Hill, Mazagon) when she fell to the ground, seized with an epileptic fit. Under the influence of the fit she rolled along the steep and rough incline of the hillock, some sixty feet. She was picked up insensible and at once carried to the hospital. On admission her condition was as follows:—There is a lacerated wound situated above the left eyebrow, and which extends directly upwards and backwards for about one inch and a half; the bone is exposed, fractured, and depressed at the centre of the fracture. Some deep lacerated and contused wounds are found in the following positions. One over the left malar bone, one some three inches in length over the left side of the thorax, another over the left hip-joint, and many smaller abrasions and contusions are seen on different parts of the body. Both ankles are much swollen and tense. She is still unconscious; pulse 80, small; respiration shallow, 80. She now and then starts and moans, and frequently carries her hand to the wound on her head.—April 1st: She is drowsy, but can be roused somewhat. She is unable to answer questions put to her. Bladder distended; ten ounces of urine withdrawn by catheter; specific gravity 1016. Towards noon the temperature, which had been normal until then, began to rise and acute delirium set in. Pulse 114; respiration 32.

April 2nd.—She passed a very bad night; great restlessness and delirium. This morning temperature 104°; pulse 114; respiration 32. All day she remained in the same condition, the pulse losing strength and becoming more rapid. The prognosis being very unfavourable, an attempt to relieve her condition by applying the trephine was decided upon, and at 6 P.M. she was placed under the influence of chloroform. A crucial incision having been made at the seat of the fracture and the flaps dissected back, a small trephine was applied over the centre of the fracture. This having been removed, a few loose small fragments were found lying on the dura mater. One sharp-pointed fragment had lacerated the membranes and wounded the brain. From around and beneath the fracture some clots of blood were removed. The dura mater at the seat of the injury was much injected and of a violet colour. A slight oozing followed the removal of the penetrating fragment. The flaps were brought together by wire sutures, a small drainage-tube being introduced. The wound was dressed antiseptically.—3rd: Still delirious, but less violent than the day before; urine withdrawn by catheter. Temperature 102°; pulse 104. She became more excited towards evening, and the temperature rose slightly.—4th: Passed a pretty fair night, neither noisy nor restless; she is still unconscious; passes urine in bed. The right ankle is much swollen and painful. Temperature 103°; pulse 100; respiration 24. Towards evening the temperature fell to 100°. The following days she remained in about the same condition, at times quiet, at times noisy and violent. She took nourishment badly. An abscess formed near the right ankle-joint, and after it had been opened (April 9th) the temperature fell to normal.—17th: Passed a fair night; answers questions when pressed to do so; generally lies quiet or moans; no longer passes water in bed, but calls for the nurse; takes nourishment fairly well; the wound on the head discharges slightly. Temperature 99°. For a while she again became somewhat violent and restless at night; several abscesses formed at the seat of the contusions, and much of the uneasiness she experienced about that time was doubtless due to these inflammatory abscesses. In the beginning of May the improvement in her condition was more marked; she understood what was said to her, but was unwilling to answer, and when she did so it was in a cross, angry tone, as if annoyed at being disturbed; she now slept well at night, her bowels were regular, she took her food better, her temperature was generally normal; the pulse averaged about 80, and was weak and compressible; the wound on the forehead was nearly healed, a few drops of sero-purulent discharge alone soiling the dressing; all the other abscesses were completely healed.

May 14th.—She is in a fair way towards recovery; is able to sit up in bed, takes her food well, is gaining a little strength; she is sulky and cross generally, and is still unwilling to speak when questioned. According to her parents she is intellectually very much the same as she was previous to the accident. Discharged at her parents' request.

The first case is one of a depressed fracture of the frontal bone, attended by slight concussion of the brain. On the seventh day after the injury the individual, who until then was doing well, was suddenly seized with progressive facial paralysis, dyspnœa, &c. These symptoms (taking into consideration the date of their appearance) indicated localised inflammation of the brain due to the presence of depressed and penetrating fragments of bone acting as a foreign body. That this was the case was amply proved by the result of the operation. The relapse which followed a few days afterwards was due to the contused brain undergoing suppuration, and owing to a free exit having been made by the trephine, the abscess was evacuated externally, and rapid recovery ensued.

In the second case we have to deal with a well-marked instance of functional disturbance of the brain. There was compression of the brain on its convex surface (a piece of bone being firmly wedged in), but unaccompanied by symptoms of compression. The paralysis and contraction which afterwards developed were due to disturbed cerebral circulation, and to localised congestion, rather than to inflammation. This is implied by the rapid improvement that followed the operation.

In the third case there was severe concussion of the brain, with laceration and contusion of the meninges. The very rapid and unfavourable progress of the case made the prognosis a most serious one. Nevertheless, after the penetrating fragments had been removed the further progress of the cerebral inflammation was considerably lessened.

Apart from their diagnostic value, I think that these cases will assist in rehabilitating the operation of trephining the skull in appropriate cases. These three individuals would, in all probability, have succumbed to cerebral inflammation had not operative surgery interfered on their behalf.

Bombay.

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NOTES OF

# THREE ABDOMINAL CASES OF INTEREST.

BY J. A. CAMPBELL, M.D., F.R.S.E.,
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CASE 1.—M. C——, a female aged at death fifty-four years, had been admitted into the Carlisle Asylum in the year 1862, and at that time was described as labouring under mania and being in weak bodily health. My knowledge of her included the latter fifteen of the twenty years she lived in this asylum. She laboured under many delusions, talked much to herself, enjoyed good bodily health until shortly before her death, and was industrious and useful. From the many entries in her case I find that little or no ostensible change in mental or bodily state was noticed up to January, 1879, when she had an attack of vertigo, and for some days felt out of sorts. She, however, continued in her usual bodily state during 1880. In the latter half of 1881 she became thinner, her skin became yellower than it used to be. On more than one occasion she was examined, but no active disease or indication of organic disease could be found. It was noted, however, that she had a cancerous look.

On Jan. 22nd, 1882, the patient complained of feeling ill, but owing to her incoherent expressions it was impossible to get her to say more than that she felt ill. She vomited, her tongue was moist and clean, her temperature normal; pulse 78, small. An examination of the chest showed a normal condition of the thoracic viscera, and nothing abnormal could be detected as regards the abdominal organs; as there seemed a tendency to constipation of the bowels an

enema of tepid water was administered, which produced two alvine evacuations. On the 23rd there was little change in the patient; she took food, but looked ill. On the 24th the morning temperature was 99°; pulse 96. She looked worse. Abdomen tympanitic and tender to the touch; no fluid in the abdominal cavity. Ordered half a grain of opium in a pill each hour. In the evening she complained of acute pain, referable to the region of the stomach, was sick, and retched much. A hot fomentation was applied and retained for some hours over the abdomen, but as relief from pain was not at once caused by hot application a subcutaneous injection of morphia was administered above the region of the stomach. Cessation both of pain and sickness immediately followed this treatment. Pain and sickness, however, recurred later in the day, but disappeared on a repetition of the injection. On the 25th the morning temperature was 98°; pulse 96. Tongue furred and dry, pulse small, tenderness over abdomen, but nothing abnormal could otherwise be discovered. Decubitus on the back, with a tendency to draw up the legs. On the 26th the morning temperature was 97°; pulse 74. Tongue furred; during the night the bowels had been three times moved, fæces normal in colour but unformed. Abdomen tympanitic, tense, and tender. On the 27th the morning temperature was 97°; pulse 80. Was weaker and looked worse. Abdomen less tympanitic and tense; has taken a fair amount of liquid food. On the 28th she was worse, pulse more feeble, skin cold. On the 29th she became worse and died.

*Autopsy, forty-two hours after death.*—The body was thin, and the skin tinged yellow. The brain was examined, but no abnormalities detectable by the naked eye were observed. Chest: The lungs were slightly adherent to the parietes by old adhesions; the bases of the lungs posteriorly were passively congested, and the structure of the lungs, on section, was normal. Heart: Muscular substance fatty; valves competent. Abdomen: The liver was light-coloured, friable, and fatty. Gall-bladder contained twelve small dark-coloured calculi (a large biliary calculus was subsequently found in the small intestine). The spleen was dark and soft, and the kidneys congested; otherwise normal. There was evidence of peritonitis of the outer coat of the intestine, more especially of the large intestine. There was no fluid in the abdominal cavity, and the peritoneum lining the abdominal parietes was in a normal state. The intestine was taken out and examined; nothing unusual, except the already mentioned biliary calculus, was noted about the small intestine; but the large intestine, down to the sigmoid flexure, was much distended, and contained flatus. There was a ring of hard cancer about an inch above the sigmoid flexure, which formed a constriction, only admitting one finger; and about three inches above this there was an ulcer, about the size of a penny, with irregular and indurated edges. There were no other abnormalities in the large intestine.

CASE 2.—J. M——, a female, aged sixty years at death, was admitted in June, 1871, labouring under melancholia, and in very weak health; pale, thin, cachectic-looking, and to all appearances very aged for years. I always suspected internal cancer from her appearance. All forms of treatment to improve her bodily health and to increase her weight (which on admission was 106 lb., height 5 ft. 2 in., and which diminished to 88 lb. within the first ten months), proved unavailing. She resented the slightest interference, never spoke, but bit, struck, kicked, or scratched if any attempt at examination was made. She had a habit of rubbing her hands, and did so so continuously that an abscess formed connected with the first finger of the right hand, and also another abscess connected with the fourth finger of the left hand. In spite of treatment disease of the cartilage and bone set in in both fingers, and they had to be removed. Healing took place extremely slowly, in fact for a long time little or no change seemed to take place in the severed tissues. On March 1st, 1882, it was noted that she was becoming gradually thinner and weaker, and on more than one occasion, but at considerable intervals previous to this date, she had had a loose stool followed by great pallor, faintness, and coldness. She resisted all attempts at examination with extreme viciousness. On several occasions she has been examined while being forcibly held. The result of these necessarily imperfect examinations may shortly be stated—viz., that percussion over the chest was clear, that some mucous râles were heard over both lungs, that the heart sounds were feeble but distinct, and that nothing abnormal was detected by percussion or touch; as regards abdomen, her temperature was subnormal, her bowels were moved regularly, she took a fair amount of food, but she became gradually paler, thinner, more cachectic-looking if possible, and died on March 7th, 1882.

*Autopsy, forty-nine hours after death.*—The body was thin, and free from marks of injury. The brain was examined, but no marked lesions were noticed, and it is, therefore, unnecessary to enter into a detailed account of the appearances. The left lung was closely adherent by old adhesions to parietes, especially at apex; its upper lobe was congested, both lungs contained some deposit of grey tubercle at apex. The pericardium contained two ounces of fluid; the heart was yellowish in colour, its muscular substance was fatty, its valves competent. Liver light coloured and friable. Spleen and kidneys normal. Stomach and intestines removed and examined; both were found in a normal state, with the following exception. At the caput cæcum there was a thickening and appearance of tumour, as if the caput cæcum were crammed full of contents of a firm nature; on removing and laying it open the whole of the inner surface of the caput cæcum was found covered over with irregular masses of hard cancer, but the cavity of the viscus was patent, the external surface presenting a smooth and normal appearance.

CASE 3.—E. H——, aged thirty-four at death, was admitted in November, 1866. She was entered as a congenital imbecile in weak health, unable to answer questions though able to speak a few words, was dirty in habits, ill-tempered, passionate, and at times violent. By dint of careful attention she improved in habits and conduct, and her bodily health improved. In 1873 she had an attack of excitement which lasted nearly six months, and during which, in spite of careful feeding, she lost weight. From this date till March, 1882, she remained in her usual mental condition. During the period of more than fifteen years that she had been an inmate of this asylum she had been free of physical ailment.—March 25th: Patient had taken food the day previously as well as usual, and seemed in her ordinary state of health when she went to bed. During the night her bowels were moved. The motion was reported as natural in colour, size, shape, and consistence, by the night attendant. After this she was rather talkative, and appeared as if pained. As she looked ill she was kept in bed. She refused breakfast. I saw and examined her with all the care I could shortly after 9 A.M. There were no marks on the body. Temperature 97°; pulse 80, very weak. The tongue was slightly furred, with a tendency to dryness. The heart's sounds were feeble. There was comparative dulness over the left lung, both anteriorly and posteriorly, and respiration was harsh; but no crepitation, mucous râles, or other abnormal sounds heard. The abdomen was examined, and nothing abnormal was detected. There was no increase in size, and no abnormality noticed by touch or percussion; the patient exhibited no fear of being examined; no tenderness on pressure. The patient seemed to have a tendency to sickness, though she did not vomit. I was at a loss to know what was wrong, but thought it probable that she was going to have an attack of acute chest disease. I ordered a mustard poultice to be applied to the left side, and liquid nourishment to be given to the patient. At noon, while sitting up taking some beef-tea, which she was doing with avidity, she suddenly fell back in bed, and had a slight epileptiform convulsion, her eyes turning round. She became sick, vomited the beef-tea she had taken, passed urine in bed, and died in a state of collapse within forty minutes.

*Autopsy, twenty-eight hours after death.*—Body free of marks; rigor mortis present; face and lips pale; pupils equal, rather dilated; thumbs inverted. Head: Brain examined, no abnormality noticed. Chest: Right lung free in cavity, very slightly congested; left lung very slightly adherent at apex by an old adhesion; left lung was slightly congested, principally posteriorly; structure of both lungs normal. Heart: Muscular substance normal, valves competent. Abdomen: There was a considerable amount of blood-tinged fluid in the abdominal cavity, and on the contents of the abdominal cavity being fully exposed, a large portion of the ileum and of the large intestine were seen to be quite black; there was, in fact, a twist of a large mass of intestine. Ligatures were applied to the lower ends of the duodenum and colon and the mass removed. Eight feet (measured) of the small intestine were found to be black and strangled, and a foot of the descending colon was similarly affected. The intestine, though black, was found strong and fresh on traction, showing recent strangulation. There was no ulceration of intestine, and no abnormality of parietal

peritoneum. The liver, spleen, kidneys, uterus, and ovaries were normal; the stomach and urinary bladder empty.

*Remarks*.—I have endeavoured to eliminate extraneous matter and to condense the account both of the cases and autopsies from the reports in my possession so as to save the reader from needless mental exertion. In an asylum containing from 400 to 450 patients, with an average death-rate of only 7 per cent. per annum, calculated on the average numbers resident, to have within two months three deaths from causes such as are narrated above is a remarkable coincidence. That abdominal cases are about the most obscure, the most uncertain, and the most difficult to deal satisfactorily with is almost an axiom. The difficulty in diagnosing and treating physical disease in the vast majority of the insane is as great as, and in many cases even greater than, in dealing with young children; no indication of the seat or nature of the malady can be communicated by the patient. In the three cases reported no aid of this sort was really available; in one, the first case, pain was complained of, but during most of the illness many vague complaints were made, and they were made only in a semi-coherent manner. In the second case active resistance to examination complicated matters; and in the third and last case real mental defect prevented the power of communicating symptoms. In the first two cases I suspected internal cancer from the general appearances, but was unable to localise it. In the first case, that of M. C——, the yellowish tinge of the skin, the sickness, and pain in the region of the epigastrium might be, and probably were, the result of the gall-stone complication. The great prevalence of gall-stones in the insane has been noted in other asylums as well as in this. Considering the gravity of the intestinal lesion, it seems rather astonishing that signs of bowel complication should not have set in earlier, and have been of a more intense character. The unformed character of the stools was noted; but this means really nothing, for I have seen in a case of very narrow stricture of the large intestine large solid and firm fæces passed, which must have solidified and formed in the lower part of the gut. In the second case the position of the cancer and its not in any way affecting the outer surface of the caput cæcum are noteworthy points. I find that out of 589 deaths in this asylum (and the cause of death is not conjectured, but is ascertained by post-mortem examination) twenty-nine, or nearly 5 per cent., have been caused by cancer; of this number eleven have been due to cancer of the stomach or intestinal canal. I have not data to enable me to comment on the proportional death-rate in other similar institutions from this disease. Were a uniform system of recording, tabulating, and publishing the causes of death in asylums and hospitals in force, clearly stating where the result was ascertained by post-mortem examination, a comparison of such fatal diseases would help in forwarding our knowledge of their history and habitat. In the third and last case, the symptoms and post-mortem appearances clearly point to a very recent strangulation. I believe the effusion found in the abdominal cavity took place within three hours, between the time I examined her and her death. That the strangulation should have affected the parts it did seems strange to me. The largeness of the portion of intestines strangled undoubtedly caused the rapidity of death; death in this case really resulted from shock.

## SALICYLATE OF SODA IN ACUTE ORCHITIS COMPLICATING GONORRHŒA.

BY EDWARD HENDERSON, M.D., F.R.C.S. EDIN.,
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THE marked and speedy relief of pain which follows the administration of salicylate of soda in rheumatic inflammation of the joints has been for some time past a matter of common clinical observation. The success which I have myself had with this drug in treating these affections led me in the autumn of 1880, while in charge of the Shanghai General Hospital, to give it a trial in a case of acute epididymitis occurring as a complication of gonorrhœa. Since then I have had but two satisfactory opportunities of repeating the experiment; I regard, however, the results obtained in these three cases as sufficiently good to warrant further trial of the remedy, and, indeed, entertain the hope of finding by more extended experience that we possess in salicylate of soda a drug which exercises something very like specific influence over the disease.

CASE 1 was admitted to the General Hospital on September 13th, 1880. The patient contracted gonorrhœa about three weeks previously. For a week the left testicle had been somewhat swollen and painful. On the 11th the swelling increased considerably, and the pain became severe and constant. On the 12th he suffered a good deal, and was unable to leave his bed; that night the pain prevented him from sleeping, and he had fever. On admission, at 10 A.M., his temperature was 102°. The left testicle was about four times larger than the right, and the scrotum covering it was red, being stretched and glossy in front, and somewhat œdematous below. There was great tenderness. The urethral discharge had disappeared. I thought the tunica vaginalis implicated, and regarded the case as probably a suitable one for treatment by puncture, as recommended by Mr. Smith and others. Salicylate of soda was ordered in twenty-grain doses hourly until the pain should be relieved. At 4.30 P.M. four doses had been taken—namely, at 11.10, 12.10, 1.10, and 4. He had sweated profusely, and the pain had greatly diminished. At 8 P.M. his temperature had fallen to 100°, and the medicine was ordered to be continued at intervals of four or six hours. He slept well that night without an opiate. On the following morning (the 14th) his temperature was 98·4°, and he felt quite easy while lying down. Pain had altogether left him on the 15th, and the urethral discharge returned on that day. There was no relapse.

CASE 2.—A police constable, seen by me for the first time on the morning of April 8th, 1881. Patient contracted gonorrhœa about a fortnight before that date. One of his testicles had been swollen and painful for five days, but, until the morning of the 8th, he had been able to do patrol duty; being then no longer able to walk, he was compelled to go on the sick list as suffering from venereal disease. The inflammation was confined to one testicle, which was between two and three times larger than the other; it was hard and very tender. The scrotal skin was red, but not glossy. The body of the testicle was perhaps affected in this case along with the epididymis. There was apparently no discharge from the urethra. The patient's skin was hot to the touch, and his tongue was coated. He was ordered salicylate of soda in twenty-grain doses every two or three hours according to the effect produced. The testicle was to be suspended in hot water from time to time during the day. By evening six doses of the medicine had been taken, and the pain was greatly relieved. The pain diminished, he said, after the first dose, when he began to perspire. In the afternoon he sweated profusely. On the following morning (the 9th) he was quite easy when lying down, and could bear the testicle to be handled freely. On the 10th he declared that all pain had left him, and asked to resume duty. The testicle was then distinctly less swollen, though still enlarged and indurated. Convalescence was uninterrupted. The urethral discharge returned, but I have not noted the date of its reappearance.

CASE 3 was first seen on June 15th, 1882. The patient contracted gonorrhœa a month before that date. For about eight days the right testicle had been somewhat swollen and painful, and at the same time the urethral discharge began to diminish, and finally disappeared. On the 13th the inflammation seemed to be subsiding; but on the 14th the patient walked a good deal, and by the evening of that day the testicle was much more swollen than it had yet been, and the pain was severe and constant. On the morning of my visit he was forced to remain in bed. He said he had had an "awful" night from pain, and had been quite unable to sleep. His temperature was 101·8° F.; pulse 90; tongue clean and dry. His bowels were confined, one small hard motion on the morning of the 14th, and the same on the morning of my visit (15th). The inflamed testicle was at least four times larger than the other, hard, and very tender. The scrotal skin covering it was dull red, stretched and somewhat glossy in front. I ordered twenty grains of salicylate of soda every two hours, avoiding any other treatment, local or by aperients. The medicine was taken at 11.30 A.M., 1.30, 2.30, 4.30, and 7 P.M. After the second dose he had some ringing in the ears and began to perspire. After the third dose sweating was profuse (the weather was warm). At 4.30 P.M., after the fifth dose, the pain was relieved. At seven o'clock I saw him again; his temperature was then 101·6°, and his pulse 84; the pain was

much less, and he could bear the testicle to be handled with tolerable freedom. On the following morning (16th) his temperature was 99·4°; pulse 88. He had taken two doses of the medicine during the night. He had slept well, and now complained only of slight pain confined to the upper part of the testicle. The testicle was much diminished in size, and fluctuation could be distinctly felt in front. His bowels were not moved till the evening of that day. Convalescence was uninterrupted and satisfactory.

In further trials of this plan of treatment I would advise that only acute cases be selected, the evidence of that condition being a distinct rise of temperature as ascertained by the thermometer. The dose of the salt should be not less than twenty grains, and should be repeated hourly until at least three doses are taken; afterwards the same dose may be continued at longer intervals.

Shanghai.

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THE

# CLINICAL CLASSIFICATION OF BACKWARD DISPLACEMENTS OF THE UTERUS.

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(*Concluded from p. 981.*)

LEAVING these cases, we come to those in which the displacement produces or modifies symptoms.

2. The second class I would make comprises those cases in which the retroversion or retroflexion is associated only with symptoms caused by slight yielding of the pelvic floor. It is in these cases that mechanical treatment is most successful. When backward displacement of the uterus is the cause of symptoms, in the majority of cases they are of this kind, and treatment is successful in proportion as they are of this kind only. The uterus may be either retroverted or retroflexed. It may be so retroverted that it is literally upside down, the cervix being above and the fundus below: a case has been recorded[1] in which the fundus protruded at the anus when the patient defecated. Or it may be retroflexed, being so bent that the posterior surface of the body forms an acute angle with that of the cervix. But so long as the uterus is free to move, and its walls of natural thickness, it makes no difference whether it be bent or straight, or, if bent, whether little or much. Although at the posterior surface the bend may form an angle, there is no angle in the canal. When we examine a case of this class we find the uterus displaced in either of the ways just mentioned; but it is quite movable, neither body nor cervix is enlarged, and there is no tenderness. The only symptoms the patient complains of will be a pain in the sacral region, and also more diffused pain, referred to the loins, lower abdomen, and thighs, and described as a dragging, bearing-down pain, a feeling as if something were falling from her. All these uncomfortable sensations disappear when the patient lies down—that is, when the intra-abdominal pressure is taken off; a point upon which I would lay particular stress. Generally the patient will complain of having to micturate with undue frequency. The menstrual function will be unaltered. There will often be leucorrhœal discharge, because the conditions (subinvolution, &c.), which weaken the pelvic floor, also favour the occurrence, and retard the disappearance, of vaginal catarrh. It is also very common to hear of constipation and dyspeptic symptoms, dating back to a time when the patient was free from uterine trouble. This is because the straining to pass scybala, which results from constipation, is a frequent cause (generally co-operating with others, sometimes perhaps alone) of these displacements. It is in these cases, in which the symptoms are those, and those only, which slight prolapsus produces, and in which the only morbid condition present is the displacement (including under that term not only the alteration in the position and shape of the uterus, but the changes giving rise to it), that mechanical treatment is most brilliantly successful. A pessary which pushes up the uterus relieves the symptoms at once. It matters nothing, in this class of cases, what the effect of the pessary upon the shape of the uterus may be. It may straighten the uterus or leave it bent; but if it pushes the uterus up, and remains in its position without injuring any part by its pressure, it will relieve.

3. The next class of cases includes those in which there is not only displacement, but congestion of the uterus. This congestion may be either (*a*) a result, (*b*) a cause, or (*c*) an accidental accompaniment, of the displacement. (*a*) When the body of the uterus sinks down between well-developed utero-sacral ligaments, its veins, which run in the broad ligaments, will, if the uterus be forced down strongly enough, be compressed against the utero-sacral ligaments, and the return of blood from the uterus thus be impeded.[2] In such cases the displacement causes the congestion. (*b*) There is also reason to think that by congestion of the uterus and the other structures having the same vascular supply, the pelvic floor may become so relaxed and weakened as to allow the uterus to fall backwards. In these cases the displacement is the result, not the cause, of the congestion, the relation being shown by the fact that when the parts have returned to a normal condition the displacement disappears. Thirdly (*c*) we have no ground for supposing that retroflexion of the uterus confers any immunity from uterine congestion, and, knowing that retroversion or retroflexion exists in a certain proportion of healthy women, it is obviously possible that they, as well as those whose uteri lie more nearly in the axis of the pelvic brim, may become the subjects of uterine congestion, which yet has nothing to do with the displacement, either as cause or as effect, the relation between the two being simply that of coincidence.

It is extremely difficult to estimate in what proportion of cases congestion accompanying backward displacement is either its effect or its cause. Recovery while mechanical treatment is being used, or relief following its application, does not prove that the congestion is the result of the displacement; for the symptoms of prolapse may be relieved by mechanical support, in cases in which the congestion is quite independent of the displacement.

In these cases the symptoms are those of prolapse *plus* those of congestion. The pain is greater and is not immediately relieved by lying down. There is hæmorrhage, the menstrual flow is increased in quantity, prolonged, or recurs with undue frequency; and is attended with more than usual pain. The body of the uterus is swollen, tender to the touch, and there is pain on defecation. Micturition is attended with cutting or burning pains, and there is irritability of the bladder. It has seemed to me that pain and hæmorrhage in these cases (as, indeed, in some other kinds of uterine disease) stand to some extent in antagonism to one another. When there are abundant losses of blood, the congestion is thereby diminished, and the pain is less. When uterine hæmorrhage is not more than is customary for the patient, pain and tenderness are often very pronounced symptoms.

In cases in which congestion is the result of the displacement, it can be cured by raising the uterus, so as to relieve the broad ligaments from pressure. This is most efficiently done by a pessary which anteverts the uterus, or at least keeps it in the axis of the pelvic brim. A Hodge's pessary will often do this, and when it does, it removes the symptoms with striking rapidity and completeness. But the Hodge's pessary is formed of a thin and hard bar. If it fail to antevert the uterus—if, as it is represented in some books as doing, it presses directly on the tender congested uterus,—it will aggravate instead of relieve the symptoms. This is an essential and practical difference between this class of cases and the one last mentioned: in the former, anything that pushes up the uterus will relieve, whether it does so by directly pressing on it or not, and it matters nothing whether that organ is straightened or remains bent. In the latter a thin hard pessary, if it presses directly on the tender uterus, will do harm; to do good it must antevert it; and if a retroflexed uterus be anteverted, the flexion will be removed. Hence relief often coincides with the removal of flexion, although that condition has nothing to do with the production of the symptoms. But often it is difficult, and sometimes impossible, to get a Hodge's pessary to antevert the uterus, and we find the best fitting instrument that we can adjust only raises the body of the uterus by pressing directly upon it, and consequently causes discomfort. In such cases I have found the best instrument to be a thick indiarubber

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[1] Edinburgh Medical and Surgical Journal, 1854, p. 336.

[2] I would ask permission again to refer to my paper read before the Obstetrical Society of London, and which will be published in the forthcoming volume of its Transactions, for fuller exposition of the reasons which induce me to attach importance to this condition.

ring, which, it is true, presses on the uterus, but, being thick and soft, its pressure is bearable, and as it raises the uterus, it relieves, although not so thoroughly as an instrument which keeps the organ anteverted.

4. Lastly, we have cases in which the displacement is combined with other morbid conditions of which it is neither cause nor effect. Backward displacements of the uterus are, as I have already stated, more commonly associated with morbid phenomena than is anteflexion, because the injuries consequent on childbirth which predispose to inflammatory disorders of the uterus and its adnexa, also predispose to prolapse and backward displacement. In such cases the symptoms may or may not be modified by the displacement. If there be any degree of prolapse, or if there be congestion, the symptoms so caused will add to the patient's suffering. Prolapse implies increased mobility of the uterus; movement of the body of the uterus involves movement of the Fallopian tubes and ovarian ligaments, and movement of these parts will be communicated to the ovary. Movement of inflamed parts produces pain, and, therefore, if ovaritis, salpingitis, or perimetritis be present, abnormal mobility of the uterus, by producing movement of the inflamed parts, will aggravate the pain. Treatment which keeps the uterus in one position, and so limits its range of movement will lessen the pain. It may thus happen that mechanical support in a case of backward displacement of the uterus will relieve symptoms not produced by the displacement. These form a group of cases that must be recognised. In them we cannot promise the immediate and complete relief which mechanical treatment gives to symptoms entirely dependent upon a mechanical cause, although sometimes the patient's discomfort may be lessened by a pessary. This group of cases, it will be obvious, comprises diverse combinations of morbid conditions. It can only be defined as including those cases of backward displacement of the uterus which do not come under either of the three former categories.

To sum up the purport of this paper. Its object is to classify cases of backward displacements of the uterus in a manner which shall assist us in their treatment, to divide them into groups the differences between which are real and practical. The classification suggested is the following, its application in practice being at the same time epitomised:—

1. *Retroversion and Retroflexion without symptoms.*—In probably the majority of cases of retroversion and retroflexion there are no symptoms arising from the peculiarity in the shape or position of the uterus. Therefore, in order that this displacement shall call for treatment, it is not enough that the patient shall complain of something, but the symptoms must be such as the displacement is known to produce—i.e., symptoms of which we can predict relief by mechanical treatment.

2. *Retroversion and Retroflexion without Congestion.*—In most of the cases in which backward displacement of the uterus is the result of morbid changes the symptoms are only those of a slight degree of prolapse. Such cases are at once relieved by an instrument which pushes up the uterus. It matters nothing what is the shape of the uterus, or what the effect of the pessary in altering its shape. In proportion as cases approach this simple type, so is the certainty of relief from mechanical treatment.

3. *Retroversion and Retroflexion with Congestion.*—In a smaller number of cases of backward displacement of the uterus there is also congestion of that organ, the symptoms of which condition are then added to those of simple prolapse. In such the pressure of a hard pessary upon the body of the uterus will aggravate the patient's discomfort, and the maximum of relief will only be gained by a pessary which anteverts the uterus. In some few cases the congestion is the direct result of the displacement, and in such immediate and complete relief will follow anteversion of the uterus.

4. *Retroversion and Retroflexion complicated with other Morbid Conditions.*—Many cases are complex, the displacement coexisting with other morbid conditions. It is only in the simple cases that benefit from mechanical treatment can with certainty be predicted.

West-street, Finsbury-square, E.C.

ROYAL MEDICAL BENEVOLENT COLLEGE.—At an extraordinary general meeting of the governors of the College to be held at 37, Soho-square on the 20th inst., at 3 o'clock, the Council will propose certain alterations in By-laws 2, 23, 24, and 25, to meet the determination of the Council to establish a system of "House Masters."

# EUCALYPTUS ROSTRATA AS A REMEDY FOR DIARRHŒA.

BY T. J. HUDSON, M.B., L.R.C.P. LOND.,
RESIDENT MEDICAL OFFICER, LEEDS PUBLIC DISPENSARY.

I AM induced to bring the above drug more prominently before the notice of the profession owing to the very marked success its administration has met with in my hands in over two hundred cases of various forms of diarrhœa during the past summer. Not that it is by any means a new remedy, though noticed cursorily in the text-books. Eucalyptus rostrata (Australian red gum) was first brought into Europe by Sir Ranald Martin, and occurs as imported in dark-red hardish masses, its essential principle being tannic acid. It is supplied in a pure form by Messrs. Harvey and Reynolds, of Leeds. The preparations found most useful have been a concentrated decoction (strength 1 in 20), and a dilute (strength 1 in 40) made by boiling the powdered gum in distilled water for ten minutes, and filtering while hot, and a syrup (strength 1 in 3). For a moderately severe attack in the adult I commence with half an ounce of the dilute decoction every two hours. If after four doses no improvement results, the same quantity should be given every hour for four times, and if still little effect is apparent, I order half an ounce of the strong decoction every two or three hours. In the vast majority of suitable cases an abatement of the attack now occurs, going on rapidly to a cure, when the same dose should be ordered every five or six hours, only gradually discontinuing the remedy. In an acute case it is best to commence with the strong decoction at the first, half an ounce every two hours, and at times every hour, increasing the time as above. The syrup may be given to children in doses of five to twenty or more drops three or four times a day, but, mindful of the tendency of sugar or mucilage to run into fermentation, seldom prescribe it, preferring small doses of the dilute decoction (thirty to sixty drops) guarded with spirits of camphor or some simple carminative every few hours, pushing it if needful. In many of the worst cases occurring in children, when all other remedies have failed, this alone has effectually stopped the alvine flux. The forms of diarrhœa alone benefited by this drug are as follows—viz.:

1. That arising from want of proper assimilation, the unaltered food causing irritation, chiefly of use after this or other harmful substance has been removed from the alimentary canal. 2. The bilious. 3. The congestive, an inflammatory state of mucous membrane existing, most useful in the latest stages, that the result of sewer gas also coming under this head. 4. Summer or sporadic cholera. 5. That the result of amyloid degeneration of the intestines, usually the small. 6. The chronic or white flux; of great service in this variety.

The above applies equally to children. In cases of intermittent diarrhœa, the patient having an attack every two or three days for some time, while well in the interval, the drug is very effectual, given as above twice or thrice daily. It is also of service in those cases which, when first seen, present great depression, where the offending cause must be allowed to take its course, and where opium is contra-indicated. The good results obtained are not simply owing to the tannic acid contained therein, as many cases unaffected by the latter are soon cured by the red gum, partly, no doubt, owing to the far less irritant properties of the decoction. It is contra-indicated where there exists much acidity or flatulence, and if the griping pains are very severe a few drops of laudanum may at first be added with advantage, but omitted so soon as this symptom is in abeyance. It adheres firmly to mucous surfaces, diminishing their secretion, coagulating the albumen, the uncombined portion serving to constringe and contract the vessels of the gut, and to give the latter tone.

As tannic acid diminishes the solvent power of gastric juice, the gum should not be given too near food. Its taste is rarely objected to, and can be improved by the addition of spirit of chloroform. Lastly, its cheapness is a desideratum, more especially in dispensary and hospital practice.

Leeds.

# A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tam aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

## ST. THOMAS'S HOSPITAL.

### POPLITEAL ANEURISM CURED BY THE USE OF ESMARCH'S BANDAGE, FOLLOWED BY DIGITAL PRESSURE.

(Under the care of Mr. SYDNEY JONES.)

W. H. E——, aged thirty, a clerk (formerly a farmer), was admitted under the care of Mr. Sydney Jones on June 19th, and discharged cured on July 19th, 1882. Three years ago he was under Mr. Sydney Jones' care for disease of the right elbow joint, which was excised. Ten weeks before admission, after straining himself whilst running, he noticed stiffness in the left leg, increased by walking. Two or three weeks later he began to notice considerable throbbing pain behind the left knee, shooting down into the calf of the leg; this was very violent at times. About a week later he noticed a throbbing swelling behind the same knee. He went to a medical man and was treated for a fortnight by flexion of the knee joint and rest in bed, but for the last fortnight has only been resting without special treatment; there has been no improvement in the swelling. The patient, a tall, strong man, with reddish hair and beard, complained only of the swelling behind his left knee and the pain caused by it. On examination this swelling presented the characteristics of aneurism of the popliteal artery, and was about the size of a large hen's egg, and similar in shape. There was marked expansile pulsation, arrested by pressure on the artery, above, and a loud bruit. Its long axis corresponded with that of the artery, and it occupied chiefly the lower part of the space. The circulation was irritable, the pulse being full, quick, and rather hard. No evidence of arterial degeneration in other parts of the body. Examination of urine showed absence of albumen. The right elbow was anchylosed, but in a good position, and patient was able to feed himself comfortably, easily reaching his mouth with the hand. The morning after admission he was given three minims of tincture of aconite in an ounce of water, and this was repeated three times daily until the 23rd, when his pulse was quieter and more compressible. At a quarter before 3 P.M. on the 24th Esmarch's elastic bandage was applied, the patient standing up to allow the sac to fill. The bandage was applied gradually from the toes upwards; the aneurism, however, not being included. The bandage was fastened round the upper part of the thigh. The elastic ligature was not used. This was kept on for one hour and a quarter, and during the last half of the time it was necessary to keep patient partially under chloroform. When the bandage was removed pulsation recommenced, so digital pressure was at once started, and kept up for eleven hours, when all pulsation had ceased; at the end of nine hours the pulsation had much diminished, but did not stop until two hours later. During the last three hours patient vomited considerably.

June 27th: No return of pulsation. The aneurism much smaller. Several branches of collateral circulation detected. The general condition of patient good.

July 4th: Left foot still a little colder than the right. Pulsation of the posterior tibial artery indistinct. Is still kept in bed with his left leg semi-flexed and placed on its outer side. An elastic stocking was ordered, reaching from the toe to above the middle of the thigh. A few days later the patient was allowed to get up, and left with the aneurism cured on July 19th. As regards internal treatment, tincture of aconite, given on the 19th, was stopped on the 22rd, and from that date until July 1st he took ten grains of iodide of potassium three times a day. On July 1st the aconite was repeated, and the patient took a similar dose for a few days.

### INJURY TO THE HEAD, IN WHICH RECOVERY OF CONSCIOUSNESS WAS FOLLOWED BY RELAPSE AND DEATH TWELVE DAYS LATER, AND IN WHICH NO CEREBRAL LESION COULD BE FOUND POST MORTEM.

F. S——, aged seven, was admitted, under the care of Mr. Sydney Jones, on Jan. 6th, 1882, with the following history:—At 4.30 P.M., on the 5th he fell over the balustrade at home, striking the nape of his neck on the stair. Before the fall he had been in his usual health. Immediately afterwards he lost consciousness, and remained unconscious for about three hours. He is then stated to have recovered, and recognised his parents. He complained of pain at the back of his head, and vomited two or three times. Later in the evening he again became unconscious, and was stated to have had fits, which continued at intervals during the night. During these attacks he struggled violently, screamed out, and ground his teeth; he also vomited frequently.

When brought to the hospital next morning he was in one of these attacks, and was restrained with difficulty, screaming out loudly and grinding his teeth. There was a slight bruise at the back of the neck, and on pressing over or near this the convulsive movements were set up. There was no sign of fracture of the skull. The pupils were very large, equal, not acting to light, but varying in size at times. Temperature 101°.

Jan. 7th: During the night he had occasionally tossed himself about in bed, and screamed out. He had only taken a few teaspoonfuls of milk and a purge. In the morning he was still unconscious, with a dry tongue and mouth. He was rather irritable, lying on his side, with his limbs flexed, and resisting any attempt to examine him. Pulse 100, weak. The temperature, which last night was 100°, was now 101·6°.—8th: The patient still lies in an unconscious condition, making only slight movements occasionally, and these principally on the left side. The left hand appeared the colder, but when tested by the surface thermometer showed little difference: right, 97·6°; left, 97·4°. His breath was foul. There were sordes on the teeth. The pulse was 108, almost imperceptible, and intermitting: temperature of body 102·6°.—10th: He slept quietly during a good part of the night, and in the afternoon showed some signs of returning consciousness, making an attempt to put out his tongue when told to do so. He slept a good deal during the day, but was very restless, tossing about from side to side when awake; the mouth was cleaner, he drank milk in fair quantities, but his pulse was extremely feeble and his hands cold: the temperature, morning and evening, was 97·8°.—11th: No further improvement. He had taken beef-tea, jelly, milk, and a little brandy. In the afternoon the pulse was 148, almost imperceptible, and he was very restless, whilst the pupils were still equal, and there was no evidence of optic neuritis. Later in the day he became more restless and violent, throwing himself about, and knocking his head against the head of the bed; morning temperature 97°. Two nutrient enemata were given.—12th: Passed a fairly quiet night, and this morning appeared to recognise his parents, but did not speak. Morning temperature, 96·8°; evening, 96 8°.—13th: Appeared to understand, and protruded tongue when told to do so. Morning temperature, 97·2°; evening, 98·4°. Took more fluid nourishment and a little custard pudding. A blister was applied to the nape of the neck; and dressed with mercurial ointment.—14th: Temperature still subnormal.—15th, 11 P.M.: Extremities cold. Pulse running, at times almost imperceptible. The respiration, which had been slow and sighing, was then rapid and difficult. Had taken food well. Morning temperature, 97·2°; evening, 98·4°. During the 17th he appeared somewhat better and more conscious, taking a fair amount of food. About 12 o'clock at night he became worse, and his extremities very cold. A nutrient enema which was given was not retained, but he took some brandy, milk, and egg by the mouth; after this there was an action of the bowels, but no general improvement; and he died quietly at 4.45 A.M. on the 18th.

The post-mortem examination did not throw any light upon the case. The brain appeared in every respect natural, excepting that the organ contained rather more blood than usual, the puncta vasculosa being well marked. No hæmorrhage; no meningitis; no tubercle; no sign of softening. Skull and vertebræ without sign of injury; and cervical portion of cord apparently healthy. In the anterior border of left lung there were a few patches of broncho-pneumonia; lungs and internal organs otherwise normal. It is regretted that no microscopical examination was made of the nerve structures.

## LIVERPOOL ROYAL INFIRMARY.

TWO CASES WHERE BOTH BREASTS WERE REMOVED FOR CARCINOMA; REMARKS.

(Under the care of Mr. REGINALD HARRISON).

CASE 1.—Mrs. M'C——, aged fifty-one, was admitted on Oct. 27th, 1881, with the following history:—About twelve months previously patient noticed a slight hardness in the left breast, which was followed in six weeks by retraction of the nipple. Shortly afterwards a similar hardness commenced in the right breast. The patient was a healthy looking woman, married, with one child. In each breast there was a well-marked scirrhous carcinoma, with retraction of the nipples, but no extension into the axilla. On Nov. 2nd Mr. Harrison removed the right breast, and on Dec. 7th, when the patient had completely recovered from the first operation, the second breast was removed. On Jan. 5th, 1882, she was able to leave the infirmary, the wounds having completely healed. In the October following the patient reported herself as being quite well, and without any sign of a return of the disease.

CASE 2.—Mrs. R——, aged fifty-two, was admitted in November, 1881, suffering from a scirrhous carcinoma of the right breast with retraction of the nipple. The hardness had been noticed for eight months previously. She had a very healthy appearance. There were no enlarged axillary glands. On the 25th the breast was removed, and in nine weeks the patient was able to leave the infirmary. She seemed very intolerant to the carbolic applications. In June, 1882, she noticed some hardness in the other breast, but nothing was done, as she thought it was inflammatory and would disappear. In September she returned to the infirmary, when the left breast was found extensively infiltrated with cancer. The axilla was free. On September 13th, 1882, the breast was removed by Mr. Harrison. She made a good recovery, and was able to leave the infirmary on October 27th.

Mr. Harrison remarked that these were the only two instances in his practice where he had removed both breasts for scirrhus. In both cases the patients presented a singularly healthy and robust appearance, in fact, to look at them before making an examination of the breasts he should have selected them as typical examples of what healthy-looking middle-aged women should be. Still, there could be no doubt, either on clinical or histological grounds, that they were seriously infected with cancer. So far as the operations were concerned, no patients could have done better. Antiseptics were employed, and no untoward symptoms were met with. The second patient on each occasion showed an intolerance to carbolic acid, which rendered its abandonment necessary before repair had sufficiently advanced; still, she made an excellent recovery. Cases of this kind were interesting, not only as illustrating what operative surgery is capable of doing in the case of rapidly growing tumours, but as bearing upon the whole subject of infection by malignant growths.

# Medical Societies.

## ROYAL MEDICAL & CHIRURGICAL SOCIETY.

*Resection of Portions of Intestine.*

THE ordinary meeting of this Society was held on the 12th inst., Professor Marshall, F.R.S., President, in the chair. The paper of the evening, by Mr. Treves, of the London Hospital, was a careful and clear exposition of the subject of resection of the intestine, and its reading was followed by a debate that was prolonged beyond the usual hour of adjournment. Several pathological preparations in illustration of the subject were exhibited from St. Thomas's Hospital and University College, and a large collection of the instruments employed in abdominal operations were also shown by Mr. Lund and Mr. Meredith.

The following is an abstract of the paper on Resection of Portions of Intestine, by Mr. FREDERICK TREVES, F.R.C.S. Portions of gut have been excised for various diseased conditions from all parts of the tube, from the pylorus to the rectum. Among the illustrative cases given of the various operations is Kœberlé's, who excised two metres of the small intestine for multiple stricture with perfect success. In properly selected cases, resection would appear to be indicated in some forms of intussusception when all other means have failed, and when on opening the abdomen, the invagination is found to be irreducible; in gangrene of gut after strangulated herniæ, in gangrene after some forms of internal strangulation, in non-malignant strictures of the small and large intestine, and in malignant strictures that are yet local. Other things being equal, the mortality after resection would appear to depend more upon faults in the details of the operation than upon any other single cause. There are two procedures: in one an artificial anus is established after resection; in the other, the two ends of the divided gut are united by sutures, and the mass returned into the abdomen. The former method has been the more successful. There are many objections, however, to an artificial anus, especially of the small intestine, and there appears to be no reason why the latter method should not prove the less fatal if the technical defects of the procedure be remedied. The operation of uniting the bowel after resection presents these difficulties. It is not easy to maintain the two ends of the gut in accurate apposition while the sutures are being introduced. The sutures are apt to be irregular. The gut above the obstruction is usually much dilated, while that below is shrunken, and it has been found almost impossible to unite well these unequal parts. One of the most common causes of death, therefore, after the operation is due to escape of intestinal contents at the suture line. There is no reason, however, why the escape should not be as surely prevented as it is in cases of pyloric resection. "To meet some of the difficulties of the operation I have ventured to introduce the following appliance:—The gut above the part to be resected is secured by a special clamp lined with indiarubber, to avoid undue compression of the bowel. The gut below is secured in like manner, and the obstructed or gangrenous part is excised. The corresponding ends of the two clamps are then united by transverse bars, so that they form with the clamps a rigid square frame. By means of this frame the two divided ends can be very accurately approximated, and can be firmly retained in position while the sutures are being applied. As it is difficult to apply sutures to collapsed gut a sausage-shaped indiarubber bag about three inches long is used, that can be distended to four or five times its natural size through a small tube inserted in the centre of its long axis. This bag is sufficiently distended to make it firm, and one end is introduced into the upper segment of the divided gut, while the other is introduced into the lower segment. The tube through which the bag is dilated thus occupies the suture line. After being introduced the bag is dilated to a good size. By this means a firm plug is introduced into the gut so as to form a substantial basis over which to apply the sutures. Moreover, by increasing the degree of distension of the bag, all inequalities in calibre between the two segments of the bowel can be overcome. Before the last sutures are applied the bag is emptied of air and is withdrawn, it being capable in its shrunken state of being drawn through a hole of the dimensions of a No. 12 catheter. If the sutures are properly applied—i.e., if the mucus membrane be not included in the stitch—there should be no danger of wounding the bag. At least fifteen or twenty sutures should be used. By means of this appliance it is possible to excise portions of the colon through an incision in the middle line." In cases of stricture of the colon it is often impossible to diagnose the exact seat of the obstruction, and under such circumstances the abdomen has been several times opened in the middle line, and, the obstruction having been found, a second operation has been performed in one or other loin. Resection of the gut from the loin presents many difficulties, and can scarcely be performed without establishing an artificial anus. If colectomy were always performed through the middle line it would, in cases of doubtful diagnosis at least, render one operation only necessary. The greatest fatality has been found in those cases of resection of the colon where the abdomen was first opened in the middle line, and the gut subsequently removed from the loin through another incision. The author lately resected some two inches of gut from the middle of the descending colon for epitheliomatous stricture through an incision in the middle line. The divided ends of the bowel were united by means of the appliance described, and the gut returned into the abdomen. The man had had symptoms of obstruction for some months, and was in

*extremis* when the operation was performed. He died in twelve hours. At the post-mortem the gut at the suture line was found fully distended with fluid faecal matter, yet not the least trace of that matter had escaped from the intestine. The case serves to demonstrate that portions of the colon can be resected through the middle line, and that the gut may be so united as to prevent all escape of contents.—The PRESIDENT, in inviting discussion upon the paper, drew attention to a series of preparations on the table of various morbid conditions of the intestines from the museums of St. Thomas's Hospital and University College; and also to a large selection of instruments used in abdominal operations, exhibited by Mr. W. A. Meredith of London, and Mr. Lund of Manchester.—Mr. BRYANT, in congratulating Mr. Treves upon his case and contribution to the subject, proposed, in the first place, to offer a little friendly criticism upon it. He regretted that Mr. Treves in dealing with the case had not performed lumbar colectomy, for the case was one of chronic obstruction, and clinically the probabilities were in favour of the disease being in the descending colon, so that if the lumbar incision had been made he would have come upon it and readily removed it. Of the two procedures, abdominal and lumbar, the latter was to be preferred as an exploratory operation, and even for colectomy, for at least six inches of the colon can be readily dealt with through the lumbar incision—i.e., if the bowel be not overdistended, as it was not in Mr. Treves' case. He praised the instrument invented by Mr. Treves as an admirable device; but it must not be forgotten that in cases of intussusception or internal hernia great lengths of bowel have to be dealt with, whilst the distended and inflamed condition of the bowel above the obstruction would be very difficult to unite with the distal collapsed segment. In cases of stricture, unless the diagnosis can be made very early—i.e., before there is obstruction—the same difficulty in uniting the two segments would be met with. In Mr. Treves' case the cæcum (as is usually the case) was more distended than the colon immediately above the stricture, and this being so the clamp could be applied more readily. He also urged that in most cases of internal strangulation the inflamed condition of the gut would render it far more liable for stricture to ultimately follow upon its successful suture from contraction of the wound, just as stricture ensues in those cases of intussusception where the invaginated segment separates by sloughing. It was for this reason that in his own case of colectomy he (Mr. Bryant) preferred making an artificial anus to attempting to suture the severed ends of the bowel; although he admitted that Billroth's experience of pylorus resection showed that in cases of limited annular stricture such suture might be safe. Again, how would the mesentery be dealt with when a large piece of small intestine had to be excised? Although not prepared at present to adopt the measure, he trusted that his objections might be overcome and his opinion changed. Mr. Bryant added, that in the three cases (including Mr. Marshall's) where abdominal section had been first done and then lumbar colectomy, he had felt that a better result might have followed had the lumbar operation been chosen for exploration in the first instance.—Mr. BARKER pointed out that wounds under aseptic conditions showed no tendency to contract, union taking place by first intention. That was true of wounds in the skin and serous membranes, and was quite as applicable to the intestine. Nor did he think many cases of intussusception when separation took place with recovery were followed by stricture; and he referred to one case where Dr. Peacock said that no symptom of obstruction followed, although the patient survived the intussusception many years. Nor does stricture occur after attacks of typhlitis and ileus. He did not think then Mr. Bryant's inference justified. — Mr. HOWARD MARSH alluded to the continued advances in abdominal surgery, and pointed out that in Mr. Treves' case interference came, as in so many cases, too late. The patient was so exhausted that colotomy even might have been fatal. He looked forward to the time when an early recognition of these cases would lead to very different results. But no surgeon hesitates to operate on strangulated hernia because it is too late to afford relief; and such a contingency must often occur. The case of cancerous stricture of the colon in which he (Mr. Marsh) had performed abdominal section, was that of a woman, aged forty, who was suddenly taken with intestinal obstruction when at work. An accurate diagnosis was impossible, and looking to the age of the patient alone colotomy might have been preferred. The case proved to be annular stricture of the sigmoid, and he made an artificial anus in the gut above it. Mr. Marsh then narrated cases which had recently come before him, to show how little reliance could be placed on the numerical method for diagnosing the site of a stricture in a subject beyond middle age. (1) A man, aged fifty, suddenly seized with symptoms of obstruction whilst walking in the street. Colotomy performed without relief. Post-mortem: abscess in connexion with appendix vermiformis, which had burst into the peritoneal cavity. (2) Obstruction in an elderly lunatic, presumed to be in sigmoid; no operation. Post-mortem: two gall-stones impacted at ileo-cæcal valve. (3) Case with history of increasing constipation; from age of patient stricture thought to be in colon, but as its precise seat was uncertain right colotomy was done. There proved to be ulceration of the lower six inches of the ileum. Such cases showed that the numerical method might be carried too far in diagnosing the seat of a stricture in the large bowel; and, further, they demonstrated the advantage of the median incision over a colotomy which is done without certain knowledge of the position of disease. The difficulties raised by Mr. Bryant might not prove to be well grounded, and he thought that eventually the abdominal operation would come to be preferred.—Mr. HARRISON CRIPPS said that although Mr. Treves had demonstrated its possibility, he would have to show a fair probability of success in the operation before it could be generally adopted; and in the case he related death occurred before the separation of the sutures, or inflammatory softening might have led to faecal extravasation. He himself had practised excision of the rectum in cases of cylindrical epithelioma, in which disease it is right not only to relieve the obstruction but to remove the diseased mass, which can be done without fear of recurrence. He would prefer making an artificial anus after resection of the bowel to the attempt at suturing the divided ends on account of the risk of the latter, with the possibility of subsequent stricture. Stricture follows removal of the lower end of the bowel, and can only be obviated by the continued use of bougies—a measure, of course, inapplicable to the intestine within the abdomen. In Mr. Marsh's case an artificial anus was made, but it would have been better still had the diseased part been excised.—Mr. MACNAMARA observed that abdominal surgery was undergoing a great change, and now that we know abdominal section can be done without much risk, operations on the intestines will be more frequent. Sutures of wounded intestine did well; he had three cases in which recovery took place, and no stricture followed; this being so, he thought Mr. Treves was right in saying that success mainly depended on the manner in which the details of the operation were done; faecal extravasation need not be feared if care be taken. Nor did he agree with Mr. Bryant as to the frequency of secondary strictures; for if so, how could the immunity from stricture after dysentery, where large sloughs separate, be explained? Apart from this, he believed with Mr. Barker that the operation of suture could be done with very little risk of subsequent inflammation. After hearing the paper and seeing Mr. Treves' instrument, he should be inclined to adopt his suggestion.—The PRESIDENT said that as regards this operation of resection of the bowel, they were on the verge of improvements, and that Mr. Treves' contribution was valuable as an effort to advance the subject. He thought with Mr. Bryant that there would be considerable difficulty sometimes in getting the dilated bowel into apposition with the collapsed portion, a difficulty which he feared would not be wholly met by Mr. Treves' instrument, for he could not see how the dilated gut could be made to contract. It was just possible in future that electricity might be called in to cause such contraction of the upper segment and dilatation of the lower, so as to approximate the calibre of the two portions. In his own cases he was perfectly sure that no instrument could have made them equal. Mr. Treves' clamp was a great improvement on Martigny's, which did not bring the divided ends together. He agreed with Mr. Treves as to the use of a large number of stitches, and suggested that the puckering following the union of the two unequal-sized ends of bowel might be met by putting the sutures in each end at unequal distances apart. Although the formation of an artificial anus was simpler and safer, they must not be content with that, but seek a better method, nor be deterred by some failures; and there was sufficient to encourage these endeavours. He agreed with Mr. Barker as to the slight fear of stricture following on suture, especially as contraction

is due to granulations. He was still of opinion that in a case of chronic obstruction (and Mr. Marsh's cases were acute ones) the lumbar operation was preferable; but this was only his view, and he might come to prefer the median incision. In his own cases he failed to withdraw the diseased bowel through the median incision; it was at the lower part of the colon, and he did not think of dividing the peritoneum.—Mr. TREVES, in reply, said that the case he had related was an obscure one, there being no symptoms pointing to obstruction of the descending colon; and it was under the impression that the disease was in the ileum that he opened the abdomen. Had he felt sure of its actual seat he would have done the lumbar operation. In reply to Mr. Bryant's objections, he referred to Kœberlé's case, where two metres of intestine were successfully removed, the mesentery requiring only twenty-four ligatures. The dilating bag, which he had used in his own case, considerably aided in distending the collapsed bowel to the size of the distended part. Again, the most successful cases of resection had been cases of gangrene after strangulated hernia, for which Kocher had six successes out of eight operations. Subsequent stricture was very rare in intussusception. Leichtenstein, who collected upwards of 900 cases, says that fatal stricture followed in only 3 to 4 per cent. of the cases of spontaneous separation of the invaginated bowels. He agreed with Mr. Marsh's remarks about too great reliance being placed on statistics; and it must be remembered that in many cases of chronic obstruction the onset of symptoms is often acute. The risk of extravasation could not be so great in the case of the intestine as in that of the pylorus, when it had been quite prevented. In cases of great disparity in calibre between the two portions it would be well to make an oblique section of the lesser segment, as in the pylorus operations. Lastly, in strictures of the small intestine no treatment was available except that afforded by resection.

## PATHOLOGICAL SOCIETY OF LONDON.

*Acute Dilatation of Stomach. — Osteitis Deformans. — Malformed Heart.—Rachitic Osteomalacia.—Stricture of the Intestine. — Malformation of Auricle. — Symmetrical Gangrene.—Cancer of Œsophagus.—Noisy Respiration.*

THE ordinary meeting of this Society was held on Tuesday, December 5th, the President, Dr. Wilks, in the chair. Several specimens, and a case of special interest were shown —namely, a case of extreme rachitic osteomalacia by Mr. Barwell, which, at the suggestion of Mr. R. W. Parker, was referred to the Rickets Committee. The body of a child who had died with symmetrical gangrene of the extremities was exhibited by Dr. Southey, and the larynx of a child with folding of the epiglottis producing a peculiar form of dyspnœa by Dr. Lees.

Mr. HENRY MORRIS showed the Stomach of a man which was in a condition of acute dilatation, and gave the following account of the case:—The patient, aged thirty-seven, was admitted into the Middlesex Hospital for suppuration of the ankle-joint. An operation having been determined on, on November 11th ether was given for about half a dozen respirations, and afterwards chloroform for about a quarter of an hour. For the following two days he vomited excessively a thin greenish fluid; the longest interval between the acts of vomiting was never more than one hour. He had taken a mixture of chloroform and ether on a former occasion without ill results. He had been prepared for the anæsthetic by being given a dose of house mixture, and an enema; a light breakfast was taken early. After the anæsthetic, orthopnœa became marked, the temperature fell below normal, the quantity of urine decreased, until towards the end none was passed; the pulse was weak and rapid, and the skin was cold. Death was due to exhaustion. At the necropsy, the stomach measured 7 × 12 × 4 inches, and reached almost to the symphysis pubis; it contained twenty-eight ounces of fluid. The coats of the stomach were thin, and contracted when cut; the kidneys were contracted and scarred on the surface, and one contained a cyst. In the upper lobe of each lung was a cavity, and the lungs contained miliary tubercle. The vomiting was unlike that seen after chloroform, and there was no intestinal obstruction. Mr. Morris referred to a few other cases of a similar kind on record, where excessive vomiting occurred in patients with a similar condition of the kidneys; but all the other cases were much more chronic in their course, with the exception of three reported by Dr. Hilton Fagge. Mr. Morris was inclined to attribute the dilatation of the stomach to the large quantity of gastric fluid secreted, this over-secretion being brought about by nervous influence. He, therefore, thought that the term acute dilatation of the stomach was not a good one to describe the condition, and suggested the word gastrorrhœa. Cohnheim had suggested that in cholera there might be such an influx into the intestines from some nervous influences.—Dr. GOODHART gave a few notes of the post-mortems of five cases of acute dilatation of the stomach, which had occurred at Guy's Hospital since 1875, and which to some extent corroborated Mr. Morris's theory of the nerve origin. Of these cases, four out of the five involved the peritoneum, and the remaining one the sympathetic. Case 1 was a man, aged twenty-two, with strangulated inguinal hernia and suppurative peritonitis. Case 2. A female, aged forty-eight, with a growth in the neck pressing upon the veins, left vagus, and sympathetic. Case 3. A female, aged forty-nine, with ulcerating colon, acute enteritis, and thrombus of the superior mesenteric artery. Case 4. A female, aged twenty-four; amputation at hip-joint, suppuration in other joints, and caseous glands in the lumbar region. Case 5. A female, aged thirty-four; death nine days after ovariotomy; stomach symptoms began two days after operation. There was great flatulent distension on the fourth day; constant vomiting ensued on the sixth day. Post mortem there was very little peritonitis and thrombus in the iliac veins.—Dr. PYE-SMITH said that Dr. Lauder Brunton had preceded Cohnheim in the enunciation of the theory of the relation of nerve paralysis to the profuse evacuations in cholera; and Dr. Pye-Smith had read a paper on the subject, in conjunction with Dr. Brunton, at one of the meetings of the British Medical Association; he would be glad to know from Mr. Morris whether there had been any analysis of the vomited fluid.—Dr. MAHOMED wished to know the condition of the kidneys, as he had met with two cases of lardaceous disease of the kidneys, in which there was a large amount of fluid ejected from the stomach.—Dr. PAYNE alluded to two specimens in St. Thomas's Hospital Museum, where during life a diagnosis of intestinal obstruction had been made; but post mortem there was great distension of the intestine, but no obstruction; they seemed analogous to these cases of dilatation of the stomach. With regard to the influence of chloroform, while he thought that it might account for the symptoms by inducing paralysis of the muscular walls, it appeared to him very doubtful whether the distension could be produced by the quantity of fluid in the viscus. —Dr. WILKS remarked that while they had only a few fatal cases on record it was not improbable that there were less severe cases which recovered due to similar causes, and that the severe gastric symptoms which sometimes occurred in gouty people were possibly of this nature.—Mr. MORRIS, in reply to Dr. Mahomed, said that the kidneys were indurated and scarred, and one had a cyst, but that there was no lardaceous disease. He regretted that there had been no analysis of the fluid, but the true nature of the case had not been diagnosed. Alluding to the remarks of Dr. Payne, he did not suppose that the dilatation occurred until the stomach was worn out with the incessant vomiting, and so allowed of accumulation of the fluid.

Mr. MORRIS then showed photographs of a case of Osteitis Deformans. The disease had been present for about twelve years, and had begun in the left leg. The legs and thighs, the patella, the ribs, the vertebræ, the clavicles, and, to a slight extent, the cranial bones were affected. The lower extremities of the tibiæ, the fibulæ, the feet, and the lower jaw were not affected in this case. His general health was good, but he had a mitral murmur, and the urine contained less than the normal quantity of urea.—Mr. TREVES said that the case was a further illustration of two facts:—1. That the bones of the arms were usually free. 2. That all cases where the bones of the upper extremity, except the clavicle, were involved, occurred in women. The loss of stature might be accounted for partly by the curves of the spine, and partly by its subsidence in a vertical direction. Finally, Sir James Paget has ascribed the condition to an inflammatory affection of the bone, and, comparing it with other inflammations of bone, Mr. Treves said that in the case of a girl aged fifteen years, under his care with chronic periostitis from congenital syphilis, the deformity in the leg presented precisely similar

characters.—Mr. NOBLE SMITH asked if any treatment had been attempted; in all Sir James Paget's cases iodide of potassium had been given with either no effect, or a bad one; he had, therefore, in a case now under his care, attributed the disease to some defect of nutrition, and treatment in accordance with that view had benefited the patient. The deformities were exactly like Sir James Paget's description, and were largely due, he thought, to the weight of the body. There was a family history of gout, cancer, and phthisis; but the general health of the patient was good.—Dr. WILKS said that one of the first cases ever shown was a man under his own care, who had previously been under a great number of medical men, and had a pile of prescriptions from them, and the main ingredient was the same in all—namely, iodide of potassium. He thought it was a common error to suppose that iodide of potassium had any influence on fully-formed bone.

Dr. TURNER then showed a Congenitally Malformed Heart. The organ consisted of an auricle with two appendices, the left being small, and a ventricle with an auriculo-ventricular valve of tricuspid form. The auricle received the inferior vena cava, and a right and a left superior vena cava. The pulmonary veins communicated with the left superior vena cava. The opening of the coronary sinus was close to that of the inferior vena cava. There was a well-marked Eustachian valve, and a narrow crescentic membranous fold over the entrance to the left auricular appendix, the rudiment of an inter-auricular septum. The aorta arose from the front of the ventricle, and gave off the coronary arteries and the three vessels from the arch in the usual order, and supplied the pulmonary circulation through an open ductus arteriosus. The arch of the aorta was directed to the right over the root of the right lung. Behind the aorta was a fibrous cord passing to the pulmonary arterial vessels representing the closed pulmonary artery. There was what appeared to be a rudimentary left ventricle without any trace of a left auriculo-ventricular opening. The specimen was obtained from a male infant, aged fifteen months, who was brought to the out-patient department at the North-Eastern Hospital for Children for bronchitis. Only a slight degree of cyanosis was observed until shortly before it died. The child had been born at full time, and was well nourished, and seemed healthy then, but had not thriven. The cyanosis had not been observed by the friends. The mother had no illness during the pregnancy, and gave no history of rheumatism beyond slight rheumatic pains occasionally.

Mr. BARWELL then read an account of his case of so-called Rachitic Osteomalacia, with extreme Deformity. The patient was a female, aged seventeen years, who had been under Mr. Barwell's care for the last three years, and the deformity had improved very slightly. The patient comes from the potteries in Staffordshire, is of healthy parentage, and the brother is a tall, well-built man. Mentally she is juvenile rather than weak-minded, and is as yet non-pubic. Nearly every bone presents extreme deformity, but the humeri, right tibia, and left ulna are bent to most acute angles; in the ulna the olecranon is elongated and bent at a right angle to the shaft. She is quite unable to stand. The bones are remarkably brittle, though rather less so than they were, consequently she has fractured the bones of both upper and lower extremities several times. There is no beading of the ribs nor enlargement of the epiphyses. Mr. Barwell's experience led him to consider the bones to be of normal thickness, but soft from deficiency of lime salts, and he questioned whether these extreme deformities were ever produced by true rickets. Some years ago, in attempting to improve the deformity of the femur of a boy in a similar condition to this patient the chisel went through the bone with very slight resistance, and about five ounces of pure oil flowed out. Both these cases suffered from pains at the convex parts of the bones. Mr. Barwell thought that these extreme distortions arose from increase of the medulla, at the expense of the bone substance, the so-called excentric atrophy, while there was very little bone-earth deposited in the thin shell of bone round the medulla.

Dr. NORMAN MOORE described his specimen of Stricture of the Intestine at the Ileo-cæcal Valve, from a man in whom colotomy had been performed in the right lumbar region. The wound showed no unhealthy suppuration. The intestines above and below contained a considerable quantity of soft fluid fæces, but were not greatly distended. The stomach was normal. The small intestine was dilated, œdematous, and reddened; three and a half inches above the valve it showed extensive irregular ulceration, which extended all round; some of the ulcers seemed healing, and there were puckerings as of healed ulcers. The ridge of the ileo-cæcal valve was very low, and the orifice was so contracted as but just to admit a large probe. Below the valve, for three inches, there was a less degree of ulceration. The colotomy wound was two inches below the valve in the large intestine. No tubercle was discoverable. Mesenteric glands normal. Externally the intestine was not abnormal, except that the lowest part of the ileum was slightly adherent to the abdominal wall. The intestinal wall was thickened above and below the stricture. No enlarged glands were found; the rectum and all the muscles and bones were normal. Microscopic examination showed that the stricture is associated with a new growth, consisting of abundant round cells penetrating all the structures of the intestinal wall. The patient was a man, aged forty-seven years, who died under the care of Dr. Andrew, in St. Bartholomew's Hospital. An attack, the first, of obstruction of the bowels, began on October 18th. The bowels not having acted up to November 1st, on that day colotomy was done by Mr. Marsh. At the time there was no relief, but the next day a large quantity of fæces came through the wound. The patient died on November 4th. A microscopic section of the tissue of the stricture was exhibited.—Dr. NORMAN MOORE also showed a specimen of Malformation of the Right Auricle. It was the heart of a woman aged thirty-three years. All the cavities are somewhat hypertrophied and dilated. The aortic valves are incompetent and thickened. The cords and edge of the mitral valve are thickened, and the flaps adherent to one another. The edge of the tricuspid and some of its cords are slightly thickened. There was considerable narrowing of the mitral orifice and a slight degree of tricuspid stenosis. The left auricle is very capacious, and its endocardium is much thickened and puckered in several parts. The septum of the auricles is complete, and the fossa ovalis less distinct than usual. The part of the right auricle near the septum is divided into two by an oblique transverse partition. This partition is of the same structure as the walls of the auricle. Its anterior half is twice as thick as its posterior. It stretches one inch into the auricle; it begins just below the fossa ovalis and stretches from the septum of the auricles near the orifice of the inferior vena cava ending on the posterior wall of the auricle. The valve of the coronary sinus is of the usual form, and may be seen beneath, and quite free from, this projection. In the middle of the free edge of the projection is a thickening one-quarter of an inch long, and the free edge is rounded and slightly thicker than the main part. The origin from the auricular wall is thicker still. He had seen one other example of this variety. It is probably developed in connexion with the Eustachian valve. Another specimen shown by him, with microscopic sections, was Tubercle of the Liver, belonging to a man, aged forty-nine, who died in St. Bartholomew's, under the care of Dr. Andrew, of tubercular pulmonary phthisis with ulceration of the larynx. The liver is studded throughout its substance with numerous whitish growths, most of them of the size of a large pin-head. Microscopic sections show that these are tubercles. Giant cells may be found in most of them. In some the cellular elements are not at all degenerate; in others caseation has taken place; all show a considerable amount of connective tissue. Virchow, Cornil and Ranvier, and Rindfleisch describe tubercle as often found in the liver in the general tuberculosis of children; and Virchow states that it more often occurs in the liver than is generally thought; but cases in which the whole liver is infiltrated at so late an age as forty-nine in phthisis, with cavities in the lungs, are certainly rare in London.—A fourth specimen was the Elbow Joint from a case of Scarlet Fever. The joint shows thickening of the synovial membrane, with roughness in two places and one narrow adhesion. When opened it was full of pus. The terminal joint of the right index-finger and the right elbow were similarly affected. No abscesses were found in the body or head. There was some pericarditis and general peritonitis. There were some minute growths on the mitral valve, and in the lower lobe of the left lung there was a small pneumonic patch. In each kidney was an infarction, broken down so as to form a small abscess. The patient was a girl, aged six years, who died in St. Bartholomew's Hospital, under the care of Dr. Gee. Another child of the family had died of scarlet fever. This one was taken ill on Sept. 28th. On Oct. 10th she had rheumatic symptoms, which rapidly

grew worse. On admission, on Oct. 19th, both elbow-joints were found to be much swollen. The temperature was 100° on admission, and twice rose to 104·9°. The child grew weaker, and died on Oct. 23rd. The case is of interest in its bearing on the question of the pyæmic or non-pyæmic nature of scarlatinal rheumatism. This case, in its anatomical features, was clearly pyæmic. —Dr. MAHOMED protested against a case like this of pyæmic inflammation of a joint, after scarlet fever, being regarded as in any way of the same nature, or throwing any light upon scarlatinal rheumatism. These pyæmic cases were very rare, while scarlatinal rheumatism was very common. In their clinical aspects they resembled acute rheumatism and yielded to salicylates; but, as a rule, they were of a milder type than ordinary acute rheumatism. There were some septicæmic cases, but they also were rare, and had no joint troubles; he thought that it was very misleading to represent scarlatinal rheumatism as not amenable to treatment.—Dr. WILKS asked if the pyæmia could be traced to any local cause, such as an abrasion of the throat. —Dr. MOORE had examined carefully, but found no local abrasion, he had shown the case from a morbid anatomy point of view, and he had experienced some difficulty in drawing a line at the point where rheumatic affections end and pyæmic symptoms begin.—Dr. BARWELL said he had always assumed that absorption of morbid products, analogous to what occurs in gonorrhœal rheumatism, was the cause of the joint inflammation, and had always entertained the idea that scarlatinal rheumatism was not true rheumatism.

Dr. SOUTHEY brought the body of a child two and a half years old who had died with Symmetrical Gangrene. She was of healthy parentage, and had been previously quite healthy, except that two or three months ago she had a febrile attack with some purpuric spots. On Friday, December 1st, she had a pain in the head; on the following morning she seemed quite well again, but in the afternoon complained that she had hurt her leg, but when her father rubbed it she said that it pained her, and he then noticed some lividity over the calf. Soon after, she was sick, febrile, and complained of headache; at six P.M. she was worse and the lividity of the calves had extended both upwards and downwards; in the night the backs of the arms were observed to be affected, and at about six A.M. patches formed upon the buttocks. She was admitted into St. Bartholomew's Hospital at noon of the 3rd inst., looking moribund; the pulse was rapid and feeble. The tibial arteries could not be felt; the lungs and heart were normal; at six P.M. she had taken some nourishment; she was ordered a warm bath and some nitro-glycerine; the cheeks were beginning to show a slightly livid redness. At seven P.M. convulsions came on and continued until she died at midnight, thirty-two hours after the first symptoms. Rénaud had described similar cases, and Dr. Southey had met with two or three others; Dr. Moore had cut up the left femoral and tibial arteries, but no embolus or other obstruction could be found. The theory advanced has been that there is spasm of the arteries, and then migration of blood elements into the skin, for the gangrene was quite superficial.—Dr. NORMAN MOORE said that he had examined the blood microscopically, and that it was whitish comparatively, containing many fat globules, something like the so-called "raspberry-juice blood" found in some cases of diabetes.—Dr. WILKS mentioned a case of this kind in which hæmatinuria was present.—Dr. SOUTHEY had also observed intermittent hæmatinuria in a case with symmetrical gangrene of the fingers. In his present case only an ounce of urine could be obtained, and it contained some albumen.

Mr. EVE brought a recent specimen of Cancer of the Œsophagus; leading from it were two fistulous passages into a cavity of the right lung, which had no definite wall. The patient had suffered from dysphagia for six months, and was in the hospital for only two days before death. Bougies were passed, and gave relief, but no attempt was made to administer food by the mouth. In the same patient an abnormal condition of the colon was found; from the cæcum the ascending colon passed down almost to the pubes, and then curved upwards towards the right kidney. He also showed the calvaria of a man who had died an hour and a half after a blow on the head; the skull was fractured, the fissure extending across the course of the middle meningeal artery, which lay in a very deep groove in the bone; the dura mater beneath this was separated from the bone by a large blood-clot.

Dr. LEES exhibited the Larynx of an infant, aged twelve months, which had, during its whole life, manifested a peculiar noisy respiration. The condition found threw light upon a set of cases of rare occurrence, but of considerable interest. An infant, almost invariably of the female sex, suffers from the moment of its birth from a noisy inspiration, expiration being much less affected or entirely free, and the cry-sound being quite clear. The noise made during inspiration is often loud and harsh; it is of lower pitch than the crow of laryngismus. It continues, though it is not so loud, during sleep and after the administration of chloroform. There is usually some recession above the sternum, and slightly at the base of the thorax, but not much, and generally sufficient air enters the lungs. In some cases exacerbations have been brought on by exposure of the surface to cold (when the chest was stripped), by flatulence, and other causes; but as a rule the condition is fairly constant. Perfect recovery ordinarily occurs after the lapse of a year or more. In this case the child died of insidious diphtheria. About a month ago a laryngoscopic examination was made, and it was then seen that the epiglottis was folded on itself like a leaf on its mid-rib, the ary-epiglottic folds being thus brought close together, and the superior orifice of the larynx converted into a linear median slit of very small diameter. This condition was found post-mortem to be actually present, the ary-epiglottic folds being almost in contact. Above them, below the centre of the folded epiglottis, was an opening of the size of a pinhole, and between the arytenoids a second opening a little larger. The trachea was lined with diphtheritic membrane. The peculiar breathing thus appears to be due to a congenital abnormality in the epiglottis. This was the fourth case which Dr. Lees had seen. Similar cases have been observed by Dr. Gee and by Dr. Barlow, but they have not yet been published, and Dr. Lees believed that this was the first post-mortem examination which had been obtained, and also the first time that the cause of the obstruction had been ascertained during life.

Dr. Finlay and Mr. Barker were then appointed auditors for the year, and the meeting adjourned.

## CLINICAL SOCIETY OF LONDON.

*Cases of Intussusception treated by Abdominal Section.*

THE ordinary meeting of this Society was held on the 8th inst., J. Lister, Esq., F.R.S., President, in the chair. The evening was occupied by an interesting debate upon the subject of abdominal section for intussusception, introduced by Mr. Godlee in a paper on three cases in which that procedure was followed, one case being successful. The other papers on the agenda had in consequence to be postponed, but Dr. Coxwell exhibited his case of a child with symptoms resembling those of myxœdema. Dr. T. H. Green exhibited a well-marked case of pseudo-hypertrophic paralysis, the patient being a man twenty-four years of age, and the symptoms of the disease only having appeared one year previously.

Mr. GODLEE read a paper on three cases of Intussusception in Infants treated by Abdominal Section.—Case 1, an infant of nine months, was admitted into University College Hospital with well-marked symptoms of intussusception, from which it had been suffering for four days. The bowel protruded at the anus. The child was very ill and weak, and it was doubted whether it was justifiable to perform any operation. It was not thought wise to spend much time on attempts at inflation, and accordingly abdominal section was performed without much delay. Antiseptic precautions were adopted throughout, the child being as far as possible protected from the chilling influence of the spray by using as small a volume as possible, and wrapping up the greater part of the trunk and legs in cotton-wool. No great difficulty was experienced in finding the point of involution, nor in reducing the intussuscepted part. The wound was secured as in an ovariotomy, and a dressing of iodoform wool was applied and secured by a flannel roller. The temperature rose the day after the operation to 105°, but soon fell to about 100°. It was necessary to give small quantities of brandy after the operation, and for some few days minim doses of laudanum were given to check restlessness and a slight diarrhœa which ensued. A little suppuration occurred along the course of the sutures, but the wound healed well,

and by the eleventh day it had completely closed, the child being apparently in perfect health.—Case 2 was a somewhat younger child, who had been seized with milder pain two days previously. The symptoms of intussusception were clear, and a sausage-shaped tumour was felt to the right of the umbilicus, easily movable, especially from above downwards. In the intervals between the spasms the child was apparently free from pain. Under the influence of chloroform the tumour could be easily felt, and it was thought that it diminished under manipulation, but as a considerable mass remained, abdominal section was performed as in the previous case, and reduction was effected by grasping the end of the ileum and drawing it towards the wound. Next morning the child seemed pretty well, but peritonitis set in rapidly and death occurred the following night. The spray used in this case was remarkably small. At the autopsy the last two inches of the ileum and the first two of the cæcum were found much congested and thickened, and some slight ulceration had occurred in the ileum; the rest of the intestines were almost empty. There were marked appearances of peritonitis.—Case 3. A child, fourteen weeks old, was admitted into the North-Eastern Hospital for Children with symptoms of intussusception that had lasted several days. The child was very ill and the abdomen much distended and tender. The bowel protruded at the anus. Abdominal section was performed. It was very difficult to find the point of involution, which was seated deeply in the splenic region, and correspondingly difficult to effect the reduction. After about four inches had been drawn out the cæcum and vermiform appendix appeared, and, thinking that the reduction was complete, Mr. Godlee drew the cæcum towards the iliac fossa and closed the wound in the abdominal wall. The child never rallied, but died eight hours after the operation. At the autopsy it was found that seven inches of large intestine still remained unreduced. It was clear that the involution had commenced, not, as is usually the case, at the ileo-cæcal valve, but at some point in the course of the transverse, or perhaps the ascending colon. Some sloughing had already occurred in the cæcum. Mr. Godlee pointed out how easily such a mistake as that which he made in the last case may occur, and the manner in which it may be avoided. He did not feel discouraged by the result of the last two cases, but whenever the gut protrudes at the anus he would at once proceed to the operation, or at all events would not waste much time in attempting inflation. On the other hand, in cases such as the second recorded he would give inflation and injection a good trial, since these are the cases most likely to be cured by this proceeding, and they are better able to bear the exhausting results which it causes. Moreover it is clear that the danger of peritonitis is a real one, even if the operation be carried out antiseptically.

Mr. G. BROWN read notes of a Case of Intussusception in a boy fourteen years of age, who was suddenly seized with pain in the abdomen. The bowels having acted in the morning, Mr. Brown saw him often throughout the day. There was constant pain, tenesmus, and melæna; and Mr. Brown diagnosed the case to be intussusception. Opium was given without relief. Next day the intussuscepted gut could be felt per rectum. A consultation was held with Dr. Cholmeley, who advised insufflation, which was ineffectually tried, and the next day Mr. Brown performed abdominal section. The operation was difficult, and in spite of considerable traction the invagination could not be reduced. An attempt was then made to perform colotomy, but the colon was found to be filled with adherent small intestine. Death took place six hours after the operation. Mr. Brown remarked upon the rapid evolution and severity of the symptoms in the case. Another time he would not, as in this case, make the incision over the tumour, but in the middle line of the belly.—Mr. BRYANT congratulated Mr. Godlee on his courage in acting on his opinion as soon as he could do so. Although only one of the cases was successful, yet each of these cases suggested the value of early operation; for, as regards the two which had failed, valuable time had been lost, and in such young subjects the gravity of delay was great. In all these Mr. Godlee was able to withdraw the intussuscepted portion from the colon, and it had been one of the main objections to the operation that this could not always be done, because whether the bowel is adherent or not depends much on the activity of inflammation. Mr. Bryant said they should bear in mind the analogy between hernia and intussusception. In the early stages of hernia the value of taxis is great, but in later stages it is unjustifiable. So in intussusception: if seen early, temporising measures, such as inflation, may succeed; but the longer such interference is postponed the chances of success are lessened, and operation becomes necessary to save life. And this must be the course pursued in spite of a few cases being spontaneously cured by sloughing of the intussuscepted gut; just as in hernia, sometimes, when an operation has been refused, spontaneous reduction takes place by a turn in bed or under the influence of opium. He believed if this principle were more often followed more successes would be recorded. He was glad to hear of the facility with which Mr. Godlee effected the reduction by withdrawing the bowel without requiring any process of kneading. His failure in the third case was quite excusable, for the fact of the appearance of the appendix cæci would generally imply that the intussusception had been fully reduced.—Mr. HOWARD MARSH also congratulated Mr. Godlee on the success of his first case, a success which taught two lessons—viz., the tolerance of infants for such an operation, and the value of mechanical treatment early applied. We were learning by degrees that children bore abdominal section well. Mr. Bryant had pointed out that the difficulties attending operations for intussusception were purely mechanical, and had rightly compared the condition to that of hernia. Opponents of the operation might argue that it showed very few successes, the fact being that the cases were few in which operation could be expected to succeed. Mr. Brown's case showed in how short a time inflammatory adhesion could occur so as to prevent reduction; but in Mr. Godlee's cases the strangulation did not seem to be complete. For, although in each case blood was passed per rectum, the very fact of hæmorrhage occurring showed, as Dr. Hilton Fagge had pointed out, that the circulation was still going on in the partially strangulated bowel. The period at which strangulation comes on is very variable. It is not the time that the intussusception has lasted, but the period during which symptoms of strangulation have been present that is of importance. Thus he had met with a case of a child who had had intussusception for two weeks, but strangulation for only twelve hours. In Mr. Godlee's two fatal cases the operation had been delayed too long, and seeing the good results of abdominal operations he joined with Mr. Bryant in urging early interference, so that, if inflation do not succeed, the operation should be done at once. The severity of an operation is no good ground for its exclusion, if it be the only means likely to succeed. Intussusception is extremely fatal, for, setting aside a few cases of spontaneous cure, almost all die, and therefore he urged surgeons to be on the alert in such cases. Mr. Marsh concluded by advocating the procedure of reduction employed by Mr. Hutchinson as preferable to simple traction.—Dr. F. TAYLOR agreed with Mr. Marsh on the minor importance of the duration of the intussusception itself as an indication for interference; for during the past year he had had under his care three cases, in two of which recovery took place after inflation. In these cases symptoms had been present for from three to five days. The symptoms of strangulation, however, were not severe, there being very little distension of the abdomen, the patients suffering from time to time from twinging pains. In the two successful cases the invagination yielded to insufflation under chloroform; the children were five and eight years of age respectively. The other case was a younger child, who was in a more collapsed state; inflation reduced the size of the tumour considerably, and it passed from the left side of the abdomen to the right. Opium was given, but in a few hours the tumour returned to its original size and position. Mr. Golding Bird saw the case and again performed inflation, with the same result as before, but collapse ensued. After death examination showed an incomplete reduction, which was completely effected by injecting water into the bowel, but not without causing a rent in the peritoneal coat.—Dr. MAHOMED mentioned a case of chronic intussusception lasting nine months, the true nature of which was not clear, notwithstanding the sloughing and passage of a portion of intestine. It occurred to him in that case whether it would not be justifiable to cut down on the bowel and remove it. He therefore suggested that excision of the intussuscepted bowel might be of value in cases which could not be reduced by other means.—Mr. HOWSE said that the results of abdominal section for intussusception were not very encouraging. Since the case recorded by himself and Dr. Fagge, in the Med. Chir. Trans., he had had four cases, in two of which the intus-

susception had protruded from the anus. In two of the cases inflation was tried, but owing to their severity operation had to be performed. On each of the four cases he failed to reduce the intussusception. In two he excised the ilio-cæcal valve, which remained unreduced. But the excision of a piece of intestine with the abdomen laid open was not easy, there being great risk of tearing the softened gut; and he suggested the use of a thin elastic sheeting to shut off the rest of the cavity whilst excising. Another difficulty he he met with was in bringing the divided ends of the bowel together, it being very difficult to draw them sufficiently out. It might be well in cases where the intestine protrudes through the anus to adopt another measure, similar to that followed by an Italian surgeon, who, mistaking the condition for one of simple prolapse, drew down the tumour and cut it bodily away; the case did well. Some such procedure as this might succeed, for it would be comparatively easy to cut off the intestinal mass, and yet the peritoneal cavity would be shut off by the adhesions in the intussusception.—Dr. MAHOMED added that he should have referred to Mr. Bryant's successful cases of excision of portions of diseased intestine.—Dr. ANDREW CLARK commended Mr. Godlee for his modest record, and wished to ask whether the effects of such operations on young children had been noted, especially as regards variations in the temperature. If observations on temperature were made during such operations, we might the better understand the various factors engaged in the production of temperature.—Mr. HAWARD said that no doubt it was very desirable to make the distinction, if possible, between those cases in which the bowel is merely invaginated and those in which it is strangulated. The acuteness of the symptoms was some guide, but it cannot be altogether depended on. There was lately under the care of Dr. Cavafy and himself a child, seventeen months old, whose attack had commenced with vomiting five days before; the bowels were twice opened after the first symptoms, and blood had been passed for two days. On admission the invaginated bowel could be felt per rectum. Ether was given, and injection with inversion failing to effect reduction, the abdomen was opened. Although acute symptoms had been present for five days there was no difficulty in withdrawing the invagination (consisting of ileo-cæcal valve and ileum) by slight traction and support from above. The main difficulties now arose. The bowels, being greatly distended with gas, could not be prevented protruding through the abdominal wound. Inversion and gentle manipulation failed to replace them; nor did simple punctures to let out the gas suffice. Finally, the distended coils had to be tapped with a trocar, liberating gas and fluid fæces, before the intestines could be got back. This same difficulty has occurred to others in abdominal section for intestinal obstruction. The child died a few hours after the operation, with commencing peritonitis, which Mr. Haward thought was due to the above protracted difficulty.—Mr. BECK had done this operation six years ago, in a child under one year old, who survived it for thirty-six hours. There was some difficulty in reducing the intestine, which he had to draw out on to the abdominal wall; and he tried to reduce it by both pushing and pulling on the intussusception. During these measures fissures appeared on the surface of the volvulus, and the child ceased to breathe, but was restored by artificial respiration.—Mr. PEPPER remembered the case referred to by Mr. Beck, which raised in his mind doubts as to the propriety of such operations. Since then he had seen one operated on by Mr. Pye, in which the peritoneal coats also split. He pointed out that Mr. Pollock, writing in "Holmes' System of Surgery," says that a very considerable number got well spontaneously, and, if so, it became a question whether it is wise to operate at all.—Dr. BUZZARD pointed out that a case of intussusception was not to be placed in the same category as ovarian disease, where there is no natural attempt at recovery; for in intussusception from the time inflammation (and therefore obstruction) sets in the natural process towards recovery is commenced, ulceration ultimately succeeding in cutting off the intussuscepted part. In every case there is this natural tendency to recovery, but in the majority the patient dies in the process. At the same time he did not wish to discourage the operation, which was often the only chance.—Dr. GLOVER asked whether belladonna might not do good, and related the case of a child who had obstruction for ten days (not, however, due to intussusception), in which no relief had been obtained under opium and enemata, and abdominal section was on the point of being performed, when belladonna was given—the extract in quarter of a grain dose, every four hours; and after the fifth dose the bowels were freely relieved.—The PRESIDENT said that the Society was to be congratulated upon the valuable discussion and the paper that had given rise to it. Mr. Howse's suggestion, although startling in its novelty, deserved careful consideration, for it was an imitation of the natural process of cure referred to by Dr. Buzzard. The peritonitis in Mr. Godlee's second case was, he felt no doubt, due to the state of the bowel, just as in peritonitis following strangulated hernia, and he did not think it attributable to the spray. In abdominal surgery it would seem that antiseptic precautions are less important than in surgery generally; but it must be remembered that those who say they operate without such precautions do really follow the practice, in scrupulously observing cleanliness in boiling or steeping sponges and instruments, &c., although they do not use the spray. Mr. Godlee took antiseptic precautions, but it was very unlikely that the spray was the cause of the peritonitis, and nothing more likely than that the condition of the bowel determined it.—Mr. GODLEE, in reply, said that no doubt in that case of peritonitis the strangulation had lasted longer than in the others. He believed there were very few cases on record where the bowel had separated by sloughing under the age of one year, and inflation was less likely to be successful in such young children; besides, it produced very great exhaustion. Dr. Taylor's cases were older, and the youngest died. He was encouraged by Mr. Bryant's and Mr. Marsh's remarks, and concurred as to the importance of diagnosing the fact of strangulation. It was difficult to know when strangulation occurs, for bloody mucus was passed without there being strangulation, and griping pains might even occur without it. The plan he adopted in the reduction was unrolling the ensheathing portion from the ensheathed, using very little traction; but these cases proved exceptionally easy to reduce. The temperature rose rapidly in the second case to 103° or 104° after the operation. There was a difficulty in returning the intestine into the abdomen, especially in the second case. He added that, in 1877, Dr. Sands, of New York, published a table giving seven successful cases of this operation out of twenty-one cases.

## MEDICAL SOCIETY OF LONDON.

*The Treatment of Syphilis.—The Difficulty of Diagnosing true Syphilis in Females.*

A MEETING of this Society was held on the 27th ult., Mr. F. Mason, President, in the chair.

Dr. DRYSDALE read a paper on the Treatment of Syphilis. He first alluded to the growing belief in a specific germ in syphilis, and exhibited a specimen sent him by Dr. Ehland of Stockholm, showing the fungus from gonorrhœal discharge. The treatment of syphilis was still undetermined. Dr. Fournier advises the use of interrupted courses of mercury for two years and ten months, in daily doses of about one grain and a half of the proto-iodide; Dr. Keyes of New York recommends a daily dose of about half a grain of the same salt, given continuously, perhaps for three or four years; whilst in London there was scarcely any regular treatment of the disease by prolonged courses of mercury, and in Edinburgh some practitioners give no mercury at all. Syphilis was introduced into Europe in 1492, and first treated by inunction in 1497. Paracelsus first gave mercury internally in 1570; and until 1812, in this country, there could be little doubt that mercury had poisoned fatally perhaps as many patients as had been killed by syphilis, which until 1836, when Wallace of Dublin published in THE LANCET his account of the treatment of tertiary syphilis by iodide of potassium, must have been a terrible disease. It was now known that syphilis varied very much in intensity, a certain number of cases getting well without any local measures. He himself had treated syphilis with iodide of potassium only; but Fournier and Hutchinson were so positive as to the power of mercury to prevent tertiary symptoms that he had begun to regard mercury as a possible germicide, and for some years past had given it continuously for months to all patients with well-marked sore or with secondary symptoms. He gives one-sixth of a grain of the proto-iodide or one grain of mercury with chalk, and since he has used this treatment he has not met with any salivation, whilst at the same time, so far as he knew, the patients have had a

complete immunity from tertiary symptoms. [illegible]ritis supervened or severe rheumatic pains with he[illegible] he increased the dose and prescribed inunction. He advocated the early commencement of mercurial treatment and its prolonged use on the ground of its antagonism to the syphilitic virus.

Dr. ROUTH read a paper on the Difficulty of Diagnosing True Syphilis in Women, and the Nature of its Contagion, with the especial view of combating the Contagious Diseases Acts. He particularly dwelt upon the insignificance of the initial lesions in women leading to their being overlooked on examination, and spoke of the extreme virulence of the syphilitic poison. He then remarked that it was proved (1) that a female could contaminate by her secretions alone, quoting several French and English authorities, and that Fournier extended this contagious power to three or four years; (2) or by mediate contagion owing to promiscuous intercourse; (3) by women who had been cured of syphilis so as to be incapable of re-inoculation and yet fertile sources of infection. He maintained that the contagion of syphilis was intensified in virulence wherever brothels were tolerated, as illustrated by reference to reports from France and Brussels; and that the danger of licensed houses was increased by the inadequacy of examinations. He also showed from the English data of the Contagious Diseases Acts that true syphilis was more severe in the protected than in the unprotected districts, the number of constantly sick being greater, and that even Mr. Lawson admitted the chance of a soldier contracting syphilis in the former as compared to the latter is as 36 to 33; and that for the last two years from the Army Reports syphilis had increased in the former 57 per cent., in the latter 45 per cent.—Dr. DRYSDALE confirmed the statement as to the increase in the prevalence of soft sores in London and Paris of late years; and also that syphilis had increased in Paris, which he attributed to the clandestinity caused by the police regulations.—Dr. F. SIMMS agreed with Dr. Drysdale's remark, and added that the presence of a soft sore was an unsafe reason for inferring the absence of syphilis. It was hard to diagnose a primary sore with certainty.—Mr. H. LEE suggested that the Society should undertake the preparation of a scientific digest of the evidence respecting the working of the Acts. Before the passing of the Acts syphilis and gonorrhœa were decreasing, but now both are on the increase. He corroborated Dr. Routh on the extreme difficulty of diagnosing primary syphilis in the female, and the same with respect to gonorrhœa. He had produced the characteristic pustule by inoculating the discharge from the healthy vaginal membrane of a syphilitic woman. The army returns were defective in not giving the cases of secondary syphilis or in distinguishing soft and hard chancres. In women the diagnosis was more difficult by the absence of the characteristic symptom found in men—the enlargement of the inguinal glands. As women only were examined under the Acts, the difficulty in diagnosis seemed to cut at the root of the scientific value of the statistics. It was a question whether one-tenth of the money that these Acts cost to execute, spent on sanitary objects in barracks, would not do far more than the execution of the Acts.—Mr. ST. GEORGE MIVART drew a distinction between the French system, which had broken down from the brutality of the police, and the English; and Dr. Routh's arguments were mainly drawn from the former. The most common source of infection he believed to be mucous tubercle, and not primary sore.—Mr. EDMUND OWEN had found that soft sores were apt to become indurated, and to be followed by secondaries, whilst infection not uncommonly was the sequel to a sore which never bore typical induration, and he believed beyond doubt in the unity of syphilitic virus. He protested against Dr. Routh's conclusion that the working of the Contagious Diseases Acts increased vice and propagated disease. The evidence given before the Select Committee had led its members to form the opposite conclusion.—Dr. DRYSDALE and Dr. ROUTH briefly replied.

## ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Surgical Section took place on the 8th inst., Mr. J. K. Barton, President, in the chair. In the library a man who had been trephined for abscess on the brain was exhibited by Mr. Kilgarriff, and various specimens by card by Messrs. Franks, Croly, A. Benson, Stokes, Wheeler, and Abraham. Mr. Wheeler's included an interesting cast of dislocation of the wrist, caused by the contracting cicatrix of a burn, and Mr. Abraham showed the sputum of bronchitis and phthisis, contrasted in reference to the bacilli. Mr. Barton then gave the inaugural address as president of the section, and referred to the Surgical Society which had lasted for the past fifty years and had now become merged in the Academy of Medicine. He dwelt on surgical clinical instruction in the Dublin Hospitals as compared with the continental system, and made some suggestions which he thought would be of advantage in elucidating some of the most difficult problems of surgery. Mr. Kilgarriff next read a paper on the case of trephining he had exhibited, which was followed by a communication from Dr. O'Reilly, of Trim, on a case of nephrectomy by right lumbar section. The patient, a girl, was admitted into Trim Union Hospital and died in forty hours after the operation, probably from shock. On removal the kidney weighed eight and a half ounces and contained an abscess from which a large quantity of pus exuded. The case was evidently one of primary tubercular disease of the organ. Mr. Knott read a paper on dissecting aneurism of the aorta, which some of the members considered should have been kept for the Pathological Section, and the proceedings terminated.

# Reviews and Notices of Books.

*Animal Plagues; their History, Nature, and Prevention.* By GEORGE FLEMING, F.R.C.V.S., F.R.C.S., &c. Vol. 2. London: Baillière, Tindall, and Cox.

PREVIOUSLY to the outbreak of cattle plague in this country, the history of animal plagues had not attracted much attention, and when the ravages of the malady forced veterinarians and stock-owners into a state of unaccustomed activity, it did not seem to occur to those who were most concerned that the disease was not a new one in veterinary medicine, and for some time England presented the remarkable spectacle of a people seeking with much effort and by circuitous paths information which was lying ready to hand, or at least to eye, in the veterinary literature of Germany and Austria. Had the history of the cattle plague been familiar to English stock-owners in 1865, the saving to agriculture would have been immense, but at that time there was no accessible English work which gave any useful information on the subject, and our farmers, even if they had known anything of the distinguished continental authors who could have enlightened them, are somewhat prone to depreciate the benefits of foreign imports.

It is difficult to convey an adequate idea of the scope and objects of the work on Animal Plagues without entering further into details than our space will permit, but there need be no hesitation in asserting that the two volumes on Animal Plagues, added to the companion volumes on Veterinary Sanitary Science and Police, and Rabies and Hydrophobia, are evidence of the remarkable industry by the aid of which their author has surmounted difficulties of no ordinary character.

The volume now before us is, we are told, the finish of the writer's labours in this direction. In the first volume, which was published in 1871, the history of epizootics, and incidentally of epidemics, included the period from B.C. 1490 to A.D. 1800. In the present volume the history is continued from 1800 to 1844, after which date the writer remarks, it is not his present intention to carry on the record, as from that time "Veterinary literature became largely developed, and there is no difficulty in tracing the origin and extension of the more remarkable at least of the animal plagues which visited the civilised world." Nevertheless to present in one view a record of the principal epizootics which have appeared since 1844 would be a satisfactory conclusion to the work; and although it might present no difficulty to Mr. Fleming, we question if any of his professional brethren are likely to attempt it.

In carrying out his self-imposed task, the author has adopted the system of chronological reference, instead of attempting a complete history of each form of disease. Commencing in the first volume with the murrains of Egypt, in the first chapter he gives an account, necessarily a concise one, of the plagues which the earliest historians have alluded to between 1490 B.C. and 400 A.D. Then, in the next chapter, in the space of some ninety pages, is compressed the history of eleven hundred years—from A.D. 400 to A.D. 1500—an unprofitable period, as the writer describes it.

Coming gradually to more modern times the accounts of epizootics in various parts of the world become the more interesting, for the reason that it is possible to connect the animal plagues of a former period with those which are familiar to this generation of stock-owners. As a concise record of the rise and progress of animal plagues from the earliest times, the value of the work to the veterinarian cannot be over-stated, and it may not be out of place to suggest that the agriculturist will find in it matter well worthy of his attention. In the last twenty years the stern logic of facts has convinced farmers that the ravages of the most deadly diseases of the lower animals are not, in their outcome, to be lightly estimated; and they are not now disposed to laugh, as they did in 1862, at the idea of legislating for the movement of animals merely because they had a few blisters on their tongues and feet. Mr. Fleming's work is likely to find readers among a class to whom a few years ago its teachings would have seemed to possess no meaning.

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*The Practical Working of Direct Vaccination from the Calf.* By BENJAMIN BROWNING, M.D. Reprinted from the Transactions of the Society of Medical Officers of Health.

IF Dr. Browning had contented himself with giving some account of the methods to which he had resorted for the vaccination of calves, his pamphlet would have merited more approval than we are now able to accord to it. The earlier pages are devoted to an attempt to show that calf lymph should be employed to the exclusion of humanised lymph. A few words will suffice to demonstrate the error into which he has fallen. He begins by showing that absolute immunity from small-pox is not always to be procured by the use of humanised lymph, and he then makes the bold assertion, that animal lymph "never fails in preventing small-pox." This last statement appears to be based upon the fact that 150 persons vaccinated by him with calf lymph, though living in infected localities, had not subsequently suffered from small-pox. As matter of fact, there is no definite evidence of the amount of protection relatively afforded by humanised and animal lymph, but the history of small-pox hospitals gives ample proof that those exposed to the disease can be efficiently protected by the use of humanised lymph. Again, Dr. Browning states that the success attained in the use of the lymph which he cultivated was 97·13 per cent., but no information is given whether he refers to the number of individuals vaccinated, or to the number of insertions made; probably the former is intended, but there is again no evidence to show what he means by success, or whether he applies this word to cases in which vesicles are developed on only a proportion of the places of insertion. That good results are attained by direct vaccination from the calf there is no doubt, and the report which we recently published on the Animal Vaccine Establishment of the Local Government Board is sufficient evidence on this point; but Dr. Browning's pamphlet is calculated to give rise to the erroneous impression that the use of stored animal lymph is to be entirely trusted to, a belief which should not be encouraged.

We feel, however, with Dr. Browning, that there is ample room for the development of calf vaccination, and although we cannot agree with all the observations which he makes, with reference to the methods to be adopted, some are deserving of attention.

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## ORCHITIS IN TYPHOID FEVER.

*To the Editor of* THE LANCET.

SIR,—With reference to the sub-leader on this head in your issue of the 9th inst., perhaps the following notes may prove interesting.

A young officer in the Dublin garrison contracted enteric fever in the Linen Hall Barracks, and went through a well-marked and severe attack in the infectious diseases hospital under my charge. The temperature was high, at one time rising to 105°, and from first to last the duration of the fever was twenty-eight days before the normal point was reached. After about ten days' convalescence the patient was moved into lodgings, and kept in the recumbent position. Particular instructions were given regarding the food, and close attention was paid to the state of the bowels, which for the latter part of the attack had been constipated. After a few days he began to sit up in an arm-chair, and was rapidly recovering, when suddenly he experienced an attack of severe pain in the right iliac fossa, and on being sent for I found him with a coated tongue, a temperature (evening) of 102°, a pulse of 120, and a decided tenderness over a considerable portion of the abdomen. On inquiry I found his bowels had become constipated, having had no motion for thirty-six hours, and it further transpired that he had been sucking grapes and had swallowed some of the seeds. He complained also of pain in the right testicle, but there was no orchitis. I ordered hot fomentations to the abdomen, half an ounce of castor oil in warm milk, and a large enema of warm water. Next day he was worse. Morning temperature 103°, evening 104°; tongue very foul; pulse 120; severe pain and tenderness over abdomen, with orchitis of right testicle. Some relief had followed the oil and enema, but there was evidently more to come away. Another large enema was given, which acted well on the bowels. Hot fomentations were kept to the abdomen and scrotum, and one grain of calomel and half a grain of opium were given every fourth hour. On the following day the temperature fell to 99°, the pain and tenderness in the abdomen had disappeared, but the testicle remained swollen and tender. The scrotum was not inflamed. The epididymis was not involved, but the right cord was painful on pressure. From this time the case did well, and the young man is now quite convalescent.

I am, Sir, yours truly,

J. B. HAMILTON, M.D.,
Surgeon-Major.

Dublin, Dec. 9th, 1882.

## DEATH IN PRISON.

*To the Editor of* THE LANCET.

SIR,—On reading your remarks upon a recent death in Huntingdon gaol in THE LANCET of December 2nd, the evidence of the governor of the prison, that "there are no arrangements under which, in the event of any sudden illness or other emergency, and the surgeon or assistant-surgeon being absent from the town, I can call in another medical man to attend a prisoner," struck me as very surprising, and as proving to how great an extent red-tape may fetter and cramp the official mind. The medical officer of a local prison can, with the approval of the commissioners, appoint a substitute, who, in cases of emergency, and in the absence of the medical officer, may visit the prison. In the event of the medical officer and his substitute being both of them engaged or absent, it is still possible for the governor of a prison to call in the nearest available medical man. In proof of this I may state that, three or four years ago, one of the warders of Her Majesty's prison at Devizes was murderously assaulted, and severely wounded by a prisoner with a knife, which he used for mat-making. The governor of the prison, very properly seeing the urgent nature of the case, at once despatched a messenger for the nearest surgeon, as well as for me who lived at a greater distance. We arrived together, but I was only too glad to have the assistance of my friend in attending to the wounded man. In this case the commissioners at once allowed my friend a fee for his services, thereby sanctioning the action of the governor in sending for the nearest help.—Yours, &c.,

EDWARD CLAPHAM,
Late Med. Officer H.M. Prison, Devizes.

Wimbledon, Dec. 11th, 1882.

# THE LANCET.

*LONDON: SATURDAY, DECEMBER 16, 1882.*


## Sir Thomas Watson, Bart.

FULL of years and of honours, the greatest English physician of the present century has at length gone to his rest. We have elsewhere given some details of Sir THOMAS WATSON'S distinguished career, and we have traced his progress from the Grammar School at Bury St. Edmunds to the unquestioned headship of the medical profession, a position which for many years he occupied with singular honour and dignity. As he was honoured by being so highly placed amongst his professional brethren, so his exaltation may be said to have reflected honour upon the profession, whose members so highly and so universally appreciated the high qualities of their revered head.

The last occasion on which Sir THOMAS WATSON attended a meeting of the Fellows of the College of Physicians was in the spring of the present year, when Sir WILLIAM JENNER was for the second time elected President. In the absence of the senior censor, the senior Fellow present was called upon, in the usual form, to deliver to the re-elected President the insignia of his office and to administer the formal oath. When Sir THOMAS WATSON got up to walk towards the President's chair, the whole of the assembled Fellows rose as one man to show their respect and affection for their venerable ex-President. The respectful feeling which was then so touchingly and spontaneously displayed by the assembled Fellows of the College of Physicians is shared by the entire profession, who will feel as a personal loss and sorrow the removal of one whom they have so long been accustomed to regard as their most distinguished member. What, then, are the qualities which have gained for this great physician the respect and affection of all who have had the privilege and the happiness of knowing him? It is the rare and happy combination and balance of great intellect with the highest moral qualities which constitute the truly wise and good man. In this sense an eminent living physician has spoken of Sir THOMAS WATSON as the wisest man whom he had ever known; and a near relative describes him to have been the most unselfish of men. His own lectures and public addresses may be looked upon as giving the best and fullest illustration of the illustrious physician's mind and character. What student or practitioner of medicine can read thoughtfully that well-known and often-quoted introductory lecture in which, in terms of solemn and lofty eloquence, are set forth the privileges and responsibilities of those who enter the profession of medicine, without being led to form a higher estimate of his calling? without being inspired by the desire to act up to those lofty principles which the earnest teacher endeavours to infuse into his pupils? And that he taught no less by example than by precept is known and gratefully acknowledged by thousands who have had the privilege of his acquaintance. He was himself a living impersonation of the principles which he so eloquently expounded in his lectures. And, withal, he was modest and unassuming, as becomes a truly great and wise man.

THE theatre of the Royal College of Surgeons was crowded, literally to overflowing, on Wednesday afternoon, to hear Sir JAMES PAGET deliver the first Bradshawe Lecture. We mentioned last week that this lecture had been instituted by the widow of the late Mr. WILLIAM WOOD BRADSHAWE, of Reading and Andover, who bequeathed £1000 to both of the Royal Colleges with a similar object—namely, that a lecture might be delivered annually at each of these institutions, to perpetuate the memory of her husband, it being stipulated that the subject should bear upon some question of medicine or surgery, but beyond this a very wide latitude being left the lecturer. It is needless to say that the audience were not disappointed. It is impossible for Sir JAMES PAGET to treat of any subject without adding to it an interest and a grace which are all his own, while his fluency of style and elegance of diction effectually prevent that irresistible feeling of somnolence that afternoon lectures at the College of Surgeons are apt to induce in the most attentive.

The lecture was "On some Rare and New Diseases." Sir JAMES PAGET did not, however, enter into a description of the natural history of any one of the diseases to which he alluded, but after enumerating a few of those to which his attention had been particularly directed, such as osteitis deformans, the joint disease of locomotor ataxy, and some others, he launched into the broader questions of whether or not these are actually new diseases? and, if so, how have they come into existence? Not only is this subject of the greatest possible interest in itself, but it supplied the lecturer with an excellent text on which to point a moral as to methods of observation both of the commoner and the rarer forms of disease. Let us take as examples one or two of the epigrammatic sentences, many of which will be found in the lecture, and which will doubtless remain for a long time usefully in the recollection of those who heard and those who may read his words. "Why are things rare?" is a question we are told we should be in the habit of asking ourselves when brought face to face with cases presenting any unusual or interesting anomalies; we are not to put such cases aside simply as anomalies or peculiarities, and therefore of but little interest, but to endeavour, by tracing, if possible, the cause of their occurrence, to find, perhaps, the clue to the development of such new morbid conditions as those to which reference has been made. Is it, for example, with diseases as with family likenesses, that as an exact likeness is never transmitted from parent to child, so the tendency to disease is never inherited in precisely the same way, and thus modifications are introduced which gradually become solidified into a type? And if this be the case, in what manner does hereditary transmission modify the type of diseases? For instance, are the new forms which we occasionally observe hybrids, which have no power of transmitting themselves as such; or mongrels which will breed more or less true; or are they, again, simply two or more morbid conditions existing as it were side by side; or, on the other hand, should they be looked upon more in the light of combinations? "Collect bad specimens," says Sir JAMES PAGET, speaking from the point of view of one who has all his life had the interest and utility of museums at heart. It is not by multiplying typical examples that advance in discovery is to be made, but rather by the careful record and preservation of those which we do not understand,

such as JOHN HUNTER'S specimens of gumma in the gastrocnemius, and typhoid ulcers in the intestines. Speaking of rare specimens, Sir JAMES PAGET says, "It would be very useful if some one would collect hundreds or even thousands of them and arrange them, even though it were only under such headings as I have just indicated. But even as they are, singly and in disorder, let me say that we ought not to set them aside with idle thoughts about 'curiosities' and 'chances.' Not one of them is without a meaning; not one but might be the beginning of excellent knowledge if only we could answer the question, Why is this rare? or, being rare, why did it in this instance happen?"

Sir JAMES PAGET expressed the belief that some diseases have really been developed in comparatively recent times, and are becoming more common as the result of hereditary transmission; for, as he pertinently observed, it is scarcely conceivable that marked and chronic deformities like those produced by osteitis deformans or Charcot's joint disease should have escaped the observation of such careful observers and indefatigable collectors as "HUNTER, HOWSHIP, LANGSTAFF, COOPER, STANLEY, and others, who collected not merely illustrations of disease well known to them, but whatever was curious whether it was known to them or not;" and yet there are no examples except of ancient date in any of our museums. At the same time he pointed out that many so-called new diseases, such as Bright's or Addison's, are really old at the time of their discovery, and are only recognised by the light of increasing pathological knowledge. And it was also shown that the study of the varieties of well-marked species of disease is not merely of pathological but of the greatest practical interest. Many drugs which are of undoubted value in certain examples of a particular malady, such as bromide of potassium in epilepsy or guaiacum in chronic rheumatic arthritis, fall into disrepute, because in a certain other number of cases they appear to be absolutely useless; but "that which some call the fallacy of therapeutics is generally the fallacy of diagnosis. We need not only the diagnosis between diseases essentially different, but that between the different and varying forms of each of those which we call by a generic name; and, beyond this, we need a more exact power of what may be called analytic diagnosis; for there are few simple cases, and in those which are not simple we need to be able to discern all the components, and the proportions in which they are mingled or combined. Better treatment will follow better diagnosis, and better diagnosis will certainly follow a more exact pathology."

Everyone will agree with Sir JAMES PAGET in the praise he bestowed on those who have devoted so much time and labour on the perfecting of the Hunterian Museum, amongst whom none perhaps is more deserving than himself; and all will join with him in urging surgeons, wherever they may be, to do their part in helping to make this national collection perfect by sending up their rare specimens when occasion offers.

We have only to add that this the first "Bradshawe Lecture" has thus proved a most interesting and instructive occasion, and one not soon to be forgotten; and if succeeding lectures should even rival the first in interest, we may fairly assert that the name of this "home-loving and studious man, who diligently cultivated his mind in both literature and science," as well as that of his "generous widow," will not only be handed down in good repute to posterity, but will be remembered from year to year as marking one of the red-letter days in the surgical calendar.

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MANY of our readers must have been amused and somewhat puzzled by the lecture on Fever published in our last two numbers by the able and accomplished lecturer on Medicine at an important metropolitan medical school. That the lecturer abounded in witty sayings and in original exposition is to be taken for granted when one knows its source, and that it was unsparing and sarcastic in its criticisms is to be expected also, for Dr. MOXON is nothing if not critical. No doubt it is a good thing to get students to think for themselves, but subtle reasonings and semi-serious digressions are apt to bewilder them. In spite of such redeeming features as the urgent advice upon personal clinical observation and the value of first-hand knowledge, as well as its clear discrimination of the varieties of fever, the lecture as a whole seems to us somewhat out of place. No doubt Dr. MOXON'S great dread lest we should be led away by mere words from the recognition of actual facts made him use his opportunity to demonstrate the fallacies of attempts to define fever, and a like sense of truth impelled him to confess that of the real nature of fever we know nothing, but know only our false mental conception of it; whilst it led also to his onslaught upon the rapidly growing tendency to find in the germ theory a sufficient explanation of the febrile process. That is why, probably, his lecture was so iconoclastic, and unsparing too in its iconoclasm, with but little proffered in exchange beyond an hypothesis as to the nature of fever, which was quite as chimerical as he believes the alternative theory to be.

Although one may disapprove of this lecture as a model of instruction, and dissent from its conclusions, yet one is not the less compelled to admire the freedom with which the lecturer spoke, or to admit the truth of many of his strictures. It seemed a little unfair of him at the outset to make so much of a single sentence as embracing a definition of fever, but doubtless he could not resist the temptation of demonstrating the logical fallacy involved in that statement; still he might have quoted the context where the writer in question guards himself against too "abstract" an idea of fever by enunciating its essential phenomena. Everyone will admit that a definition is one of the most difficult things in medicine, because of the imperfection of our present knowledge, and of all subjects that of "fever" is perhaps the most difficult to define. Even Dr. MOXON attempts a definition later on in his lecture, and exception might be taken to his statement that fever consists in a body temperature above 100°, since many would be satisfied with a lower criterion, which should yet be above the limit of normal variation in health. Dr. MOXON is very severe upon scientific teaching, or perhaps we should say upon the supremacy of all science in education to the detriment of facts of practical utility, and he charges the physiologists with the error of extending their sphere of knowledge in directions which promise but few practical results. The passages in which he touches on these subjects have a vein of truth running through them, so that one may pardon the digression which they involve from his proper theme.

The word "principle" started this digression, and Dr. MOXON seems to think aloud as he passes away from his subject down this and that bypath in a manner which must have been, at least, most entertaining to his hearers.

At length he returns to his main thesis, and, discussing the meaning of the word "kind" as applied to fever, he no doubt truly says that by "kind" we mean simply the existence of differences we are unable to explain; although in the case of living beings we are able to base distinctions upon the surer ground of the power of reproduction "after their kind." This power of reproduction is exemplified also in the specific fevers, and is considered a more reliable basis of distinction than the anatomical lesions, which Dr. MOXON regards almost as coincident rather than essential parts of the fever. His table of classification of fevers was intended to show the other and wider relations than those of species among fevers, and was drawn up much on the plan of the zoologist in dealing with groups of animals. In all this Dr. MOXON is easily followed, and is in the main right, but the statements which are the most original, and which are probably intended to excite opposition, are those which conclude the lecture—we mean his attack upon the germ theory of fevers.

Here, however, he is not content with mere iconoclasm, but by a series of ingenious arguments erects what one may call a sperm theory or a sperm and germ theory, as distinct from the fermentation or parasitic germ theory of fevers. Comparing the course of a fever in its varying episodes and inevitable termination to the life of the body itself, Dr. MOXON imagines that the micro-organisms of which we hear so much, and of which he takes the spirillum of relapsing fever as the type, are really portions of texture (we use his own phrases) cast off from one human body which can fertilise germ tissue in the infected body and start the process. Somewhat fancifully, it seems to us, he speaks of life itself being a protracted infection of the germ by the sperm, the living body remaining during its life germinal to other infections when suitable spermatic elements come into contact. In other words, there are textures in our bodies ready prepared for infection by fever-sperm cast off from other bodies, a notion not a whit less fanciful than the idea of a special pabulum for germs that come from without and are strictly parasitic. Moreover, clever at detecting fallacies in others, he seems to occasionally fall into error himself, since it was at least very unguarded of him to speak so contemptuously of the "bits of protoplasm" called bacteria, as if those believed to be characteristic of disease were identical with those which are met with in the presence of decay and putrefaction, and required similar nutriment and conditions for their development; and he does not mention that some hold it proved that these organisms are carriers of contagion, and are not the contagion itself; whilst he is actually inaccurate in the analogy he draws from the filaria sanguinis hominis. In the first place, as Dr. MANSON showed, the periodical entrance of that parasite into the blood-stream is associated with a rise in temperature, and, secondly, there is nothing in common, either as to origin, nature, or (probably) effect, between a nematoid larva and the protophytic or protozoic organisms which occur in the blood and tissues of certain specific diseases. Dr. MOXON does not hesitate, moreover, to question the inferences derived from what are known as cultivation experiments and inoculations; and in a sentence ruthlessly dismisses the results of all the patient and laborious research of PASTEUR, KOCH, and their followers, as being not proved, because the actual process of development of any single organism is not made visible. Were the lecture not addressed to students, we should have thought Dr. MOXON was really not serious in proffering such objections; but if we must take him seriously, we would equally claim to discard his "alternative theory," unless he shows us in actual process the impregnation of his assumed "virgin" tissue by the spermatic fever particles; and until his theory receives so substantial a support as that, we see no reason to impugn the value of cultivation experiments, or to regard them as other than one of the chief supports in favour of the germ theory.

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THE Criminal Lunacy (Departmental) Commission has reported adversely to the almost universal protest of the medical superintendents against the practice of removing lunatics direct from prisons to county asylums. This, indeed, might have been anticipated, looking to the constitution of the Commission, and the manner in which it set about the business in hand. The Report opens with a characteristic exercise in hair-splitting as to the meaning of the term "criminal lunatic"; highly interesting, doubtless, to the departmental, forensic, and statistical mind, but having nothing whatever to do with the practical question with which a considerable section of the medical profession has been for a long time past deeply concerned. Dr. EDGAR SHEPPARD who, as our readers are aware, recently retired from the medical superintendency of the male division at Colney Hatch Asylum, after twenty years' distinguished service, put the main issue before the Commission thus:—

"It is a grievance that the man or the woman known to be of a criminal type and class should be admitted into a county asylum, where there are, as I said before, a large number of very well educated people—people whose antecedents have been those of great respectability, and who would be naturally very sensitive on a point of that kind. There is no doubt that they do feel it. A criminal is known to be a criminal, and is spotted as such, and he exercises a very baneful and prejudicial influence upon all in the ward in which he is located. He is generally of low habits; as a rule, certainly very low habits; all his tastes and his tendencies are of a bad and unsatisfactory character. He is also given to be very seditious as a rule (that is one of the great objections to him); to subvert discipline; to be disrespectful to the staff, notably to the superior officers—to defy them; and altogether I may say he is an element of discord."

Further on, speaking of the difference between a criminal and a non-criminal lunatic in relation to turbulence, Dr. SHEPPARD gave evidence as follows:—

"I have no doubt myself that many of these criminals have proclivities to insanity; they come of a bad type of humanity altogether; they inherit a very strong tendency to commit crime, very many of them. You have only to look into their faces to see that, but taking the vice and the insanity together, and mixing them up, they become very nice compounds; and in many cases there is what I may term a maximum of crime and a minimum of insanity. They exercise a most prejudicial influence upon the other inmates, in whose case, as a rule, the insanity is the maximum and the crime is the minimum."

The Commission, evidently, did not realise the force of this reasoning; indeed, there is nothing to lead any impartial reader of the Report to suppose that the main subject of the reference was understood at all! The Commission is of opinion that when medical superintendents complain of "criminal lunatics" they mean *ex*-criminal lunatics—that is to say, persons who having been criminals have become insane, but have now in some way expiated their crimes, or are at least written off the rolls of the criminal classes. Having arrived at the conclusion "that opinions (medical opinions) as to the offensiveness of criminal lunatics to ordinary pauper lunatics, rest chiefly on experiences relating to ex-criminal lunatics, who are really ordinary pauper lunatics," and on experiences "of other lunatics in whose history crime had presented itself," the Commission proposes to amend matters by so modifying the warrants issued by the Secretary of State that when a criminal is sent to an asylum he shall become an ex-criminal—in short, a person of the very class upon the observation and experience of which the adverse opinions of medical superintendents are based! This *reductio ad absurdum* of the question at issue is worthy of the Commission and of the Report. In short, the whole inquiry has from first to last been farcical as regards the main issue in which the medical profession is interested. It may be expedient to report on the mental condition of "Queen's pleasure lunatics" at the end of each year, and that the Secretary of State should issue a fresh order of detention every third year. It may be well to give the wards set apart for lunatics at Woking prison the status of a criminal asylum; and it may conduce to the general convenience if Broadmoor Asylum is reserved for specially bad cases. It is even possible that the pressure of the main "grievance" may be mitigated if an agreement be entered into by the Prison Commissioners with conveniently situated county and borough asylums to receive from local prisons those insane prisoners who would not be willingly received until after the expiration of their sentences by the asylums of their own counties; and, finally, that alleged insane prisoners from local prisons should be sent to a criminal lunatic asylum. These reforms, we say, may do some good; but what the Commission was asked and expected to recommend was a distinct and final severance of the two classes of lunatics. It is no answer to the protest almost unanimously urged against sending criminals or ex-criminal lunatics to ordinary asylums to say, as the Commissioners say, that a large proportion of the ordinary pauper inmates of asylums are of a low type, and may have been criminal. These are not sent to the asylum stained with crime, or with recent prison associations upon them! If there had only been on the Commission one or two men possessing any experience in the actual management of county and borough asylums, the result might have been different. As it is, we can only regret that the commission was ever issued. The Report will only tend to confirm a practice which is most pernicious in its effect on the ordinary insane, and which helps to keep up the most mischievous impression that asylums are prisons and workhouses rather than hospitals—an impression which it is, above all things, desirable to remove.

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IT is premature to announce, as if on authority, that the Government has determined to bring in a Medical Bill. The Report of the Commissioners is, we believe, still under the grave consideration of the Privy Council, and the practicability of devising machinery for carrying out the recommendations of the Commissioners is being considered. Moreover, the earnest efforts of the Lord President and of Mr. MUNDELLA are on the side of those who wish to end the miserable chaos and competition of licensing authorities. It would be strange indeed if a Liberal Government could be indifferent to suggestions for improving medical education, and making the tests of it fairer for the medical student and more satisfactory for the public—suggestions emanating from a Royal Commission of the highest authority, of its own appointment, and which coincide in the main with similar proposals from previous Governments, and with a large mass of public and professional opinion. It would indeed be remarkable if the Government declined to put such suggestions into the form of practical and effective legislation. No doubt such legislation may involve the disappearance of a few small medical corporations. Yet what is this but that happy "timely death"—as Sir JAMES PAGET puts it—which should be provided for institutions as for individuals. It is not conceivable that a Government which is ready to reform the Corporation of London will shrink from a reform that may be unacceptable to a few medical corporations, which, as Professor TURNER says, are "an anachronism." That the great Universities, or even the Royal Colleges of the profession, will suffer materially we do not believe. But even if they should, they are not entitled to demand exemption from legislation that will make medical education better, medical examinations fairer, and the Medical Council something more than a clique of medical corporations. Though, then, we repeat, it is premature to announce that the Government has determined to bring in a Bill, there are ample grounds for believing that it will do so; and that if the Bill be worthy of the Government and of the questions to be legislated on, it will have the effective support of a large proportion of medical men and the gratitude of future generations of medical students, who are too little considered in this matter.

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# Annotations.

"Ne quid nimis."

## HEALTH OF THE ARMY IN EGYPT.

THE reports which reach this country of the state of health of the troops now remaining in Egypt appear to confirm the opinion we have repeatedly expressed that the high ratio of sickness and the mortality from typhoid fever were the results of the hardships the men had undergone in the brief but very trying campaign, and especially of the quality of the water they were unavoidably compelled to drink after the destruction of the canal, and that they would speedily disappear under improved sanitary conditions. It may be remembered that General Sir A. Clarke, R.E., was sent out to inquire into the nature and extent of the barrack accommodation available for the force which is to be left in temporary occupation. He has performed this duty, in conjunction with the Principal Medical Officer, and arrived in England on Wednesday. It is stated that he speaks confidently of the improved condition of the troops, chiefly as shown in the reduction of the number of sick, the milder type of disease, and the great decrease in the deaths. He is reported to have expressed his opinion that as soon as the

troops have been moved into the barracks and palaces which have been provided for their use and have undergone the very necessary process of cleaning, they will rapidly be restored to health and efficiency.

## MORTALITY IN SUNDERLAND.

RECENT mortality statistics for the borough of Sunderland present some remarkable features, indicating a sanitary condition which calls for energetic action on the part of the local public health authority. During the past eighteen weeks—that is, since the early part of August—the annual death-rate in the borough has averaged 32·9 per 1000, and in the week ending the 25th ult. it was equal to 47·8. That this excess in the rate of mortality was mainly due to exceptional zymotic fatality is evident from the fact that during the period under notice the death-rate from the principal diseases of this class averaged 9·8 per 1000, or more than three times the mean rate from these diseases in the same period in the other large English towns. Measles, scarlet fever, and "fever" have all recently shown epidemic fatality within the borough. Measles, from which but one death was recorded in the first six months of this year, caused 46 deaths in the three months ending September, and no fewer than 123 in the first ten weeks of the current quarter. Scarlet fever fatality has also recently assumed excessive proportions, resulting in 60 deaths since the beginning of August. The deaths referred to "fever," which were 5, 14, and 27 respectively in the first three quarters of this year, rose to 28 in the first ten weeks of the current quarter. Such an aggregate of zymotic fatality affords conclusive evidence of an exceptionally unsatisfactory sanitary condition. The four months under notice embrace a great portion of the period of summer diarrhœa fatality, and it may be noticed that the annual death-rate from this cause during last summer quarter was 3·2 in Sunderland, against 2·4, the mean rate in the twenty-eight great towns. With regard to the mortality statistics of Sunderland since 1870, when the Registrar-General first published uniform statistics of disease mortality for some of the largest English towns, it should also be borne in mind that this town suffered more severely than any other from the remarkable small-pox epidemic of 1870-71; also that the average death-rate from scarlet fever and "fever," as well as the rate of infant mortality, during the twelve years 1870–1881, showed a marked excess compared with the mean rates in the largest English towns. The death-rate from scarlet fever in Sunderland during the six years 1876–81 averaged 1·70 per 1000 (more than double the mean death-rate in the large towns),—a fact which, taken alone, should prompt a rigid investigation of the health-condition of the town.

## THE COMPOSITION OF CERTAIN ORGANIC LIQUIDS.

THE Strongylocentralus lividus (Brandt), belonging to the class of echinoderms, contains in its interior a liquid which is taken by the inhabitants of certain districts in the South of France under the impression that it is a digestive tonic, and it seems to have such an action when taken in the dose of half a wineglass daily. It thus constitutes a sort of animal mineral water. Its composition has been ascertained by MM. Mourson and Schlagdenhauffen. When fresh it is neutral in reaction, but in a few days it becomes turbid, acquires a fetid odour, and deposits brownish flocculi. Its reaction is then alkaline, and it contains ammoniacal and sulphuretted compounds; 1000 parts of it contain 959 of water, and 41 of solid matters, of which 37 are fixed salts, consisting chiefly of chloride of sodium, with some chloride of magnesium, small quantities of the sulphates of calcium and magnesium, and traces of chloride of potassium, and carbonate of calcium. There are also three parts of organic matters containing fatty matters or ptomaine, a little urea, and a little albuminoid matter. From this analysis the liquid apparently consists of sea-water, with an excess of carbonic acid and nitrogen (as if modified by the products of respiration), excrementitous matters, and some products which are probably derived from the organs of generation. The ptomaine seemed to have an action on the frog, although the effect was not fatal, because the quantity that could be obtained was insufficient to produce a full toxic condition. It is conjectured that the ptomaine may be the same which is present in some bivalve mollusca, as mussels, and at a certain time of the year causes poisonous effects. The same investigators also analysed the liquid contained in hydatid cysts and cysticerci. The nutrition of living hydatids must be effected by passage into their interior of the serum of the blood, according to the laws of endosmosis. Analysis showed that clear hydatid liquid does contain a small quantity of albumen, although too little to be revealed by the ordinary method of testing with heat and nitric acid. Moreover, all hydatid liquids contain a variable quantity of a ptomaine, which it is conjectured may be the cause of the toxic effects (urticaria, peritonitis) which have sometimes been observed to follow the irruption of these liquids into one of the serous cavities of the human body. Nevertheless experiments on frogs yielded only a negative result. They seem to be most abundant at the period of evolution of the echinococci, and scanty during the inactive stage, a fact which may explain why the rupture of a cyst is sometimes followed by serious consequences, and sometimes by none. All these liquids are extremely putrescible. The liquid contained in the large vesicle of cysticercus tenuicollis contains a relatively Considerable amount of albumen, and possesses very marked poisonous properties. The symptoms produced by its inoculation are closely similar to those produced by the inoculation of the poison of certain venomous animals. Injected into the peritoneal cavity of rabbits, it causes their death with all the signs of decomposition of the blood. A distant analogy of the physiological relation and chemical composition of these liquids and that of the liquor amnii led to an examination of the latter also. The investigators succeeded in demonstrating the presence of a ptomaine in this also, obtained at the time of labour by a puncture of the membranes. Its quantity was very small, but they conjecture that if it is ever present in larger amount it may furnish an explanation of some of the accidents of gestation.

## VENTILATION OF THE UNDERGROUND RAILWAY.

SOME years ago a great stir was made about the condition of the tunnels of the Underground Railway, and not without reason, as the unfortunate deaths which then occurred sufficed to show. Since that day the outer circle has been completed, and impelled partly by a wholesome sense of the need for ventilation, and partly by an equally natural though not wholly disinterested yearning for "more light," the Metropolitan District Railway Company is now endeavouring to persuade the Board of Works that it ought to be allowed to discharge its foul accumulations of steam and smoke and impure air into the atmosphere of the public recreation gardens along the Thames Embankment. This plea is based on the assumption that the Metropolitan District Railway must needs discharge its aerial abominations somewhere. The obvious reply to this demand runs on the lines of the memorable rejoinder to the plea "A man must live"—namely, "I fail to see the necessity." It is doubtless much to be desired by the Company and by its patrons that there should be abundant ventilation, but that insignificant portion of the community which does not either hold shares in the Railway Company or travel on its

lines has a right to be considered. In plain truth the Railway Company has not any valid claim to be allowed to become a nuisance to the frequenters of the gardens on the Embankment. We cordially endorse the argument of a contemporary, that the Railway Company should be enjoined to consume its own smoke or to employ compressed air as a motive force. It is enough to have the Embankment encumbered with railway stations. The Board of Works is simply doing its duty to the great majority of the public in refusing permission to the Company to break the ground and make the gardens useless by poisoning their atmosphere.

## THE CONTAGIOUS DISEASES ACTS AT DEVONPORT.

AT the annual meeting of the subscribers to the Royal Albert Hospital at Devonport, which has been recently held, many statements were made in regard to the working and efficiency of the Contagious Diseases Acts, of sufficient weight and importance to give them more than a local interest. The report of the Select Committee of the House of Commons has materially strengthened the hands of the supporters of these Acts, and that this is recognised by their antagonists is immediately apparent. Tracts and addresses have been circulated in Plymouth, Devonport, and Stonehouse, urging that the report is one-sided and not in strict accord with the evidence laid before the Committee. It is therefore of the utmost importance that we should have laid before us the views of those inhabitants in the Three Towns who subscribe to and support the local hospital in which the patients are detained who are under these Acts, as well as the views of the chief naval authorities in charge of the Government establishment at Devonport. These are most explicitly stated in the report of the Hospital Committee and the speeches of Mr. Edward St. Aubyn, its chairman, Mr. J. May, a former mayor of Devonport, Admiral Sir Houston Stewart, K.C.B., and the other admirals and civilians who were present at the annual meeting, and are fully reported in the *Western Morning News* of the 23rd ult. The opponents of the Acts now endeavour to show in a most characteristic and ingenious manner that they are unnecessary in that district. Before the Select Committee Inspector Anniss had given perhaps the strongest and most convincing proofs of their efficiency that had been laid before the committee. He showed the value of these Acts not only directly so far as the diminution of venereal disease is concerned, but also in their deterrent and reclamatory effects, which Mr. Stansfeld and his supporters so persistently urge as being beyond the scope of, and altogether apart from, their necessary operation. The Watch Committee of the Devonport Council, evidently jealous of the activity of the special inspector, claim that sufficient importance has not been given to the labours of their own superintendent. So that instead of allowing that at any rate much good had been done, the supporters of the opposition to the Contagious Diseases Acts are actually trying to make capital out of petty local rivalries, in which the only dispute is as to whom the credit of the present condition of the Three Towns is due. If the only object and effect of the Acts is to perpetuate, extend, and render safe the immorality of the districts under the Acts, why should they not at once confess that their estimate of their value in the Plymouth district is at direct variance with the local one? We should then have no difficulty in forming our own conclusions as to which is the more likely to be the correct estimate? During the past year the number of patients in the lock wards has greatly diminished, and at the end of last month there were only twenty-eight patients in the hospital. This is the smallest number since the introduction of the Acts, and can it be seriously urged that this does not show that they have been most effectual in dealing with the disease, against whose spread they were especially introduced? Sir Houston Stewart's remarks on the efficiency of similar measures at Malta are very important, for it is continually stated and restated that such restrictions have always been found, in the foreign ports in which they are in operation, ineffectual against the spread of syphilis; and evidence on this point is rarely of such cogency and force as the statement we quote from the worthy admiral's speech:—

"The President, after having thanked the meeting for the compliment paid him, said: 'With regard to the Contagious Diseases Acts I should like to say a few more words. Some years ago I commanded a vessel in the Mediterranean which had a crew of 1350 men. It is the custom on that station for the fleet to winter for six months at Malta, and then be ready to go to sea. I am now speaking of my own vessel, not others of the squadron. During the six months we lay in Malta harbour the Acts were in force, and when the cruising season came round my ship was able to go to sea without any venereal cases. During the absence of the fleet from Malta some influence prevailed with the then Governor, and the Acts were suspended. Well, the ships returned to Malta and wintered there under the altered circumstances, and in my ship alone when the cruising season came round again we were obliged to leave thirty men behind suffering from disease. You know what that means—three or four guns unmanned, besides other things which had to be neglected. The then Commander-in-Chief in the Mediterranean, and who has since been Commander-in-Chief at Devonport—I mean Sir W. F. Martin—took the subject up. The Governor was a man of sense and judgment, the Acts were put in force again, and with what result? The following winter we again went to Malta, and were able to go to sea in my ship at the end of six months without any cases of disease.'"

## HEALTH OF INDIAN CIVIL SERVANTS.

A PANIC has arisen with regard to the physical and mental deterioration which, it is alleged, has set in among the "competition wallahs" during the last few years. It is stated that out of one hundred and odd civilians appointed to the Bombay Presidency since the institution of the competition system, nine have died, two have been forced to retire on account of physical debility, ten more were considered quite unfit for their work on account of bodily weakness, two have been dismissed from inability to ride and uncouth manners, and eight have become positively insane. Although it is probable that this statement is somewhat exaggerated, still for some time it has been well known that a very considerable proportion of the civil servants in all three Presidencies appointed under the competition system have been invalided, and that they compare very unfavourably both in physical and mental stamina with those who were appointed in the days of the old East India Company. It is sought to refer the collapse to the over-strain caused by the "mad fad of cramming" induced by the competition system, and we think that a great portion of the evil may in truth be fairly laid at the door of this system. But it must not be forgotten that during the last twenty years the conditions of life in India have considerably changed. The introduction of railways and telegraphs has quickened the pulse of Oriental life in a wonderful degree, and the strain on the nervous energies has enormously increased; nor has the supply of civil servants at all kept pace with the rapid development of the country, so that the demands made on all members of the administration have increased proportionately. Such a strain, which might be borne with impunity in Europe, certainly cannot be long maintained in India without serious consequences being entailed; and when it is considered that the majority of the civil servants come to the task with their nervous systems already overtaxed, and all the "go" taken out of them by years of cramming, it is not to be wondered at that a breakdown occurs. Another factor at work is, undoubtedly, that though the "competition wallah" is supposed to be a

perfect prodigy of learning, yet his practical knowledge of the world is limited, so that when placed in situations which require tact, diplomacy, and common sense, he suddenly finds that his books can no longer help him. We know nothing so trying, or more likely to lead to mental breakdown, as to be placed in positions of responsibility without having the requisite gift. It is not long since we had the pleasure of reading some letters of William Augustus Brooke, who at the commencement of the century was judge of the Court of Appeal, and lived to become the father of the Indian Civil Service. These letters show that in those days it was possible for civil servants to perform their duties with vigour, energy, and efficiency, without the sacrifice of health. Few ever thought of leaving India till their fortunes were made and their period of service completed; those who were invalided home may have brought back "livers" impaired with curry and brandy pawnee, but not shattered nervous systems.

## VASCULAR DILATATION.

THE mechanism of dilatation of the vessels has for a long time occupied the attention of MM. Dastre and Morat. Previous researches have led them to conclude that the sympathetic is a mixed system of nerves, containing fibres which dilate as well as those which constrict the vessels. The investigators have shown that this is true of the vaso-motor fibres for the neck, face, ear, and limbs. This principal point having been established, it becomes easy to follow the course of the nervous excitations, which, proceeding from certain parts of the sensory apparatus, provoke reflex dilatation of the vessels in various parts of the organism—a course which includes, necessarily, centripetal fibres, a centre, and the efferent fibres contained in the sympathetic. As a type of the reflex, they have recently studied that which is known as the auricular reflex, or Snellen's reflex; and their results have been communicated to the Académie des Sciences. The principal sensory nerve of the ear is the great auricular, a branch of the cervical plexus. Sensory impressions on the external ear are by this nerve conducted to the spinal cord by the second or third cervical roots. If the nerve is divided and its central end stimulated, reflex congestion of the ear is produced, which is some times enormous in amount. This vascular dilatation is preceded by a slight constriction if the exciting current is of moderate intensity; but if the current is strong the dilatation occurs at once. The effect is produced by the mechanism of the vaso-dilator nerves which come from the spinal cord by the eighth cervical and first two dorsal pairs, and which pass thence into the sympathetic. In order to ascertain the whole of the course traversed by the excitation, it is only necessary to find its path in the spinal cord. For this purpose MM. Dastre and Morat have made the following experiments. In a white rabbit the spinal cord was divided unilaterally, somewhere between the third and seventh cervical pairs. The operation was followed by a bright congestion of the whole head, especially of the ear, on the corresponding side. The congestion disappeared at the end of a few hours; it must therefore be ascribed to an excitation, and not to a paralysis. When the circulation had become normal the two auriculo-cervical nerves were divided and then the central extremities were stimulated. On the normal side reflex congestion at once resulted; but on the side operated on no effect was produced. The operation was also performed in another manner. Instead of a hemisection, the cord was divided entirely, artificial respiration being maintained. After one or two hours, when the congestion from the operation had disappeared, the auriculo-cervical nerve on each side was stimulated, but no effect was produced. The conclusion is, that the interruption to the continuity of the cervical cord between the second and eighth cervical pairs abolishes the vaso-dilator reflex of the ear. The integrity of this spinal segment is therefore a necessary condition for the phenomenon. A division of the cord below the sixth dorsal has no effect on the reflex.

## THE COLD WEATHER AND PARISH RELIEF.

THE inclement weather of the past ten days has already thrown many labourers and others out of their usual employment, and a considerable amount of distress has been the consequence. Should the cold still continue to be severe the strain on the resources of the poor will become very great, and much will depend on the action of the various boards of guardians throughout the kingdom, whether this period of distress can be tided over without adding materially to the pauper roll. Liberal out-door assistance will enable many to struggle on till more genial weather returns, but if this is given with a niggard hand then many a respectable family will be driven to seek refuge in the workhouse, and so become for ever pauperised. This caution we regret to say is needed since the illiberal and in the end expensive policy of refusing adequate out-door relief has been already inaugurated. We notice that a death is reported from Bethnal-green which, according to the verdict at the inquest, "was accelerated by the unfeeling treatment and cruelty on the part of the parish officials." In this case it was shown that had adequate out-door relief been afforded the period of distress might have been tided over. We would impress upon medical men who visit among the poor, district visitors, and the clergy, the importance of seeing that the parish authorities do their duty. We need hardly remind our readers how heavily the inclemency of the present season tax the resources of the hospitals whose wards are now full to overflowing, but whilst urging the public to support them liberally, we would also impress on them the propriety of only giving their letters of recommendation to the absolutely necessitous.

## HYDROPHOBIA.

A CASE of death from hydrophobia has been reported from Rochdale. According to the report of the inquest contained in the *Leeds Mercury*, it appears that in June last a dog ran into a shoemaker's shop in Rochdale, and lay down; the owner of the shop went to stroke it, on which the animal bit him in the hand. On Nov. 24th the man presented the first symptoms of hydrophobia—some spasm on an attempt to drink. By the advice of a medical man, he took a vapour bath, and seemed to be better. Apparently growing worse, he was taken, on Nov. 27th, to the workhouse, and there was "seized, and his arms strapped," treatment which his son declared was "barbarous." The chief attendant in the "imbecile ward," states that on admission the patient "was very violent, and became insensible at times. Dr. Pinck, the surgeon, ordered him to be put into a padded room. He was accordingly put to bed, and some medicine was administered, and two inmates were directed to attend to him." He died at eight o'clock the following morning. The coroner expressed the opinion that the patient's arms ought not to have been strapped. It is not easy to form a just opinion of the treatment of such a case without further details than the report affords, but it certainly does not seem to have been very satisfactory, although we are scarcely inclined to apportion the blame in the same way as the coroner. In the later stages of hydrophobia there is often considerable maniacal violence, rendering some mechanical restraint inevitable; and if a patient in such a state is taken to a workhouse in the absence of the medical officer, it is natural that the officials, recognising the necessity of restraint, should apply it in the way they are accustomed to adopt in violent cases of insanity. But why, we would ask, was the patient taken to the workhouse at all? What could be more

calculated to aggravate his excitement than forced removal to such a place, during the stage of the disease in which the mental state is most disturbed? Surely a master shoemaker, living apparently in his own house, could have been treated there during the brief duration of such a disease. The only chance of recovery, infinitesimally small though it be, is afforded by the maintenance of absolute tranquillity of mind and body, and its furtherance by sedative treatment. If a case of hydrophobia is removed at all, it should be in the early stage of the disease, before excitement sets in. But if moved, why was such a patient taken to the workhouse? Rochdale, according to the Medical Directory, contains an infirmary and dispensary, with nine beds, four surgeons, and a resident medical officer. What is the use of such an institution if a case of hydrophobia has to be taken to the workhouse?

## ILLNESS OF THE POSTMASTER-GENERAL.

WE regret to learn that Mr. Fawcett's condition during the week has been rather perilous. On Saturday, Dec. 9th, while the fever was favourably pursuing its course, he had repeated attacks of hæmorrhage proceeding from the upper part of the air-passages, and accompanied with spasmodic cough and a sensation of choking. There have been several slight returns of the hæmorrhage since, and they cause alarm not only from the amount of blood lost, but also from the danger of the blocking of the bronchial tubes with blood. The clots and fibrinous casts lodged in the smaller bronchial tubes, chiefly by the hæmorrhage of Saturday last, prevent the ingress of air, and create irritation which may account for the continued elevation of the pulse and temperature. As long as these clots and casts remain they are liable to excite still greater mischief in the lungs; but we are glad to learn that the process of expulsion has been going on favourably during the last few days, and if this continues satisfactorily, and there is no recurrence of serious hæmorrhage, the medical attendants think they may entertain the hope that this valuable life may be spared. The anomalous character of the symptoms presented in Mr. Fawcett's case renders it difficult to give any satisfactory explanation of their origin. This, however, will probably be carefully investigated at a future time, and the sanitary conditions of his own house and of his rooms at the Post-office will receive due attention.

## A NEW DEODORISER.

A STATEMENT was recently made at a meeting of the Burslem Town Council by Dr. Oldham that smoke is really a guardian angel, and instead of a nuisance is really a blessing in disguise. Dr. Oldham contended that the smoke from the factories of his district, blending with the atmosphere, acts as a deodoriser, and thus counteracts the evil effects of bad drainage. The theory that there is virtue in smoke possesses, perhaps, the proverbial two grains of truth hidden in the bushel of chaff. The deodorising properties of charcoal are well known. It has a wonderful affinity for, and destructive power over, noxious gases. A small handful enclosed in a respirator and placed across the nostrils makes imperceptible to the most delicate olfactory nerve the strongest of odours. The question is, To what extent does coal, smoke, or soot possess the deodorising and air-purifying properties of charcoal? The healthiness of London, compared with other large towns, is well known, and the fact that it is one of the smokiest inhabited spots on the earth's surface is admitted by all; and the question again arises, Is there any connexion between these two facts? If the smoke nuisance has to be tolerated to *cure* the effluvia of drains, we should, however, prefer attention being paid to the old motto that "prevention is better than *cure*."

## FASTING IN ACUTE RHEUMATISM.

DR. CAREY E. WOOD, professor of chemistry in the medical department of Bishop's College, Montreal, in an article in the *Canada Medical Record*, recommends starvation as the treatment of acute rheumatism. He gives a history of seven cases restored to health by simply abstaining from food for from four to eight days. Amongst other advantages of the treatment cardiac complications are almost entirely averted. And he says he could give the history of forty more from his own practice. His patients were allowed to drink freely of lemonade or of cold water. In no case did the treatment fail! He is inclined to think from these cases that rheumatism is only a phase of indigestion, and that by giving complete and continued rest to all the viscera that take part in digestion the disease is attacked *in ipsa radice*. If we mistake not, Dr. Gill of Canterbury has anticipated the author as regards his theory of the origin of the disease in disorders of the viscera concerned in digestion. We are quite disposed to think that the *rôle* of starvation or fasting in therapeutics is far more considerable than has yet been described. It is an old Scripture that "fasting" is half the battle in expelling some devils. But we confess to being not a little sceptical in regard to Dr. Wood's remedy for rheumatic fever—a disease occurring often in subjects of delicate constitution. Besides the disease itself is most exhausting, being compounded of pain, sweating, and high temperature, and these extending over a long time. While it is our duty to record such statements as Dr. Wood's, it is equally our duty to say that they do not commend themselves to us as embodying the truth either as regards the pathology or the treatment of this remarkable disease, which, till Dr. Maclagan's discovery of the power of salicin over it, was an opprobrium to medical science, and which even now in some cases taxes all the resources of the physician.

## THE PARIS FACULTY OF MEDICINE.

AT the last meeting of the Academical Council the Deans of the Faculties of Medicine, of Science, and of Literature, and the Directors of the Higher School of Pharmacy, and of the Preparatory School of Medicine read their annual reports. The Faculty of Medicine now comprises four separate departments: the ancient Faculty, the Practical School (which is temporarily lodged in the buildings of the former College Rollin), the Botanical Garden of the Rue Cuvier, and the Clinical Hospitals. The number of students who followed the course of lectures for the last year (Oct. 16th, 1882, to 1883) was 4209, this being exclusive of fifty foreigners and thirty-nine women, the latter being thirteen fewer than last year. The number of examinations at the Faculty of Medicine was 6076, nearly a third of whom were "plucked."

## ISOLATION HOSPITAL AT TAUNTON.

WE learn from a report issued by Dr. Henry J. Alford, that considerable success has attended the establishment of the Taunton Sanitary Hospital. As the value of the institution has become known, its use for the purposes of isolation has steadily increased, and the total admissions during the past twelve months have amounted to seventy-six. And not only so, but the social status of the patients is also improving. When the hospital was first opened, hardly any but paupers were received, but now the cases isolated come to a very important extent from those classes amongst whom infectious diseases become so grave a source of danger to the public. Thus, cases were admitted from the houses of tradesmen whose wares might otherwise have become vehicles of infection; from dairymen's premises; from the homes of postmen, labourers, and artisans, persons who, if they had continued their employment at the same time as

infection prevailed in their families, could hardly have failed to have spread disease. It also appears that in no single instance during the year had there been any need of compulsion in order to secure isolation. Dr. Alford's report fully bears out the conclusions arrived at by Dr. Thorne Thorne, who, in his Report on the Influence of Hospitals for Infectious Diseases, shows that in nearly every case where a suitable hospital has been provided by a sanitary authority, the usefulness of the building for the purposes of the very classes for whom it was most wanted has steadily increased, and this, with only the rarest exceptions, without any need for resort to the compulsory powers of the Public Health Act, 1875.

## THE FULL QUALIFICATION FOR POOR-LAW APPOINTMENTS.

THE guardians of Walton-on-Thames would appear to consider the requirements of "full qualification" in applicants for medical officerships as a piece of "red tape." On this view they have given an appointment to Dr. Macdonald, a graduate of the University of Edinburgh, but without a surgical qualification, though two other gentlemen were in the field with the double qualification. The Local Government Board have sanctioned the appointment of Dr. Macdonald up to Christmas, but Dr. Macdonald does not undertake to get a surgical qualification till June; and on the "red tape" view the guardians have appointed him, in excess of the sanction of the Local Government Board. We certainly think that while the present absurd system of partial qualifications exists it should be applied impartially by guardians of the poor. It is hard for those who, in obedience to the system and the law based on it, have taken two qualifications to see the law voted "red tape." We are equally sorry for Dr. Macdonald, who, too, is a sufferer by the state of the law. The sooner the law of qualification is simplified and made equal the better for all.

## PASTEUR'S RESEARCHES.

A LETTER was read at a recent meeting of the Académie des Sciences from M. Pasteur, giving an account of his progress in some researches in which he is at present engaged in the district of Vaucluse. He has gone there to investigate a disease of pigs, which, in one valley of the Rhone, has recently been fatal to 20,000. The disease is called "le rouge des porcs;" and M. Pasteur announces that he has discovered its cause to be a very minute organism, which in point of size resembles that of chicken cholera. It differs, however, in its physiological properties, since it has no action on fowls, but it is fatal to rabbits and pigs, especially to white pigs. M. Pasteur has convinced himself, by experiments, that one attack affords protection against another, and he has succeeded in inoculating pigs with organisms which have been weakened by culture, and in thus rendering these animals insusceptible.

## HOMŒOPATHY AT THE ANTIPODES.

THE Tasmanian papers contain interesting accounts of the fate of a petition to the Board of the Hospital of Hobart Town, said to be signed by 1700 people, to set apart a ward for the treatment of cases under the homœopathic system. It should be stated that the Board consists of thirteen laymen and four medical officers. Mr. Dodwell asked the chairman for a return of the number of persons admitted into the hospital who had wished to be treated homœopathically. The chairman said that no such application had ever been made. In the discussion of this question Lord Beaconsfield's case naturally turned up, with disastrous results to the homœopathic argument. The usual statistics showing almost the entire abolition of mortality from fatal diseases under homœopathy were trotted out, but without effect. The medical officers of the Board showed easily that such a system would not conduce to the harmony or efficiency of the hospital, and the Board unanimously negatived the proposal. Even the gentleman who brought it forward voted heartily with the majority. When will homœopaths see the necessity to abolish their shibboleth? As regards their statistics they deceive no one, as comparing homœopathy with an old system of practice as exploded as itself. Nobody with ague would be persuaded by a whole cartload of such statistics to forego the use of good doses of quinine. One set of well-recorded cases of pneumonia, like Dr. Bennett's, without a death, exceeds all the statistics they can bring, even if the question were one of statistics, as it is not.

## CHRISTMAS FESTIVITIES.

FEW people of middle age view with equanimity the festivities the present season brings with it. This often makes them unjust to those who at the extremes of life are able to enjoy the good things if only indulged in with moderation. Middle-aged prejudice is unusually severe against plum-pudding; yet this article is a highly efficient food, yielding a force equivalent to 250 foot tons. It is also an admirable vehicle for the administration of fat, an article of diet as a rule usually objected to by children. Plum-pudding, in reasonable quantity, is certainly to be preferred to the so-called "wholesome" cakes, which have little fatty matter in their composition. A good wedge of cold plum-pudding is not an unwholesome lunch for young and growing lads to put in their pockets when out for a day's skating or hunting. Elderly people, too, are often able to compete with the younger members of the family in the enjoyment of Christmas cheer in a manner that amazes and discourages their middle-aged relations. The fact is, as has been happily pointed out by Professor Michael Foster, the digestive elements are long preserved, so that a man who in the prime of manhood was a martyr to dyspepsia, by reason of the sensitiveness of his gastric nerves, in his later years, when his nerves are blunted, and when therefore his peptic cells are able to pursue their chemical work undisturbed by nervous worries, eats and drinks with the courage and success of a boy.

## HOSPITAL SUNDAY FUND.

ON Wednesday the annual meeting of the constituents of the Hospital Sunday Fund, being the clerical and lay representatives of the various contributing congregations, was held in the Egyptian Hall of the Mansion House, under the presidency of the Lord Mayor. The annual report stated that the past year disclosed a steady increase in the number of congregations contributing, and the total amount exceeded by £2289 the largest collection previously made. In 1873 the amount collected was £27,700, from 1072 congregations; last year it was £34,146, from 1338 congregations. The amount had been divided among ninety-three hospitals and fifty-two dispensaries, and £1380, or 4 per cent. of the collections, had been expended in buying surgical appliances for the sick poor. The working expenses amounted to £1132.

## THE NEW MATRON AT GUY'S HOSPITAL.

THE success of the new matron at Guy's Hospital will depend entirely on the temper and purpose with which she enters upon her duties. If she be willing and *intends* to subordinate the nursing to the medical services of the institution—in short, to carry out the instructions of the staff,—everything will go smoothly, and the hospital will quickly regain its old prestige. We should have greater hope of this result but for the appearance in certain lay papers of

paragraphs repeating the ridiculous fallacy of asking the medical staff to co-operate with the matron. It would be just as reasonable, and no more so, to ask a housewife to co-operate with her servants. Nursing is simply sick-tending, and the sick must be tended as the doctors direct. A hospital is *solely* intended for the purpose of "cure," which is a medical function. Nursing is an integral part of the work of cure, and it must, therefore, obviously be performed under medical direction. Unless this be once for all and finally understood at Guy's Hospital, there can be no hope of peace or prosperity for this *medical* charity.

## REMARKABLE PISTOL SHOT WOUND OF THE BRAIN.

OUR Birkenhead correspondent writes: — Early last Saturday morning a sad event took place at Exmouth-street. A fishmonger and registered milkseller named Joseph Teece got up at five o'clock, telling his wife he heard burglars. He then went to the apartment of the domestic servant, Jane Wainwright, aged nineteen, who was in bed, and shot her through the head with a revolver, after which he shot himself and then swallowed the contents of a bottle containing an aconite liniment. Teece afterwards gave himself in charge, and the police removed him and the servant to the Borough Hospital. Teece is not so much hurt; the bullet having been deflected by the frontal bone, was found flattened between the scalp and the bone at the top of the head, and the most distressing symptoms of the dose of aconite have now subsided. Wainwright is still in an exceedingly critical condition, a bullet having penetrated her skull. The wound of entrance is just above the left eyebrow, through which brain substance has protruded. The pistol must have been held very close as the girl's hair is scorched. Though there is no exit wound, and the bullet must therefore be lodged in the brain, the patient has done well from the first. On visiting her on Monday evening, I found she was able to tell her name and answer a simple question. Her temperature did not exceed 102°, and her pulse was regular, and but 64. Since then her condition is somewhat improved.

## MR. GLADSTONE'S JUBILEE.

THOUGH, as medical journalists, we live in regions remote from the atmosphere of political strife, we are not the less interested in the character and history of our public men. The qualities and the capacity of a man like Mr. Gladstone constitute not only a national possession, but a physiological phenomenon. It is in the highest degree gratifying to see Mr. Gladstone with no appreciable abatement of his energy and his power of serving the State. Whenever his own consciousness may apprise him of such abatement, we have to wish him a long and quiet evening of life, sweetened by the gratitude of his countrymen, the society of his friends, and the enjoyment of his own rich and endless resources.

## THE METROPOLITAN FIRE BRIGADE.

THE Metropolitan Fire Brigade is overworked—that is to say, it is under-manned and insufficiently provided. The remedy—the only remedy—for this evil is to make it a separate organisation on the same footing as the Metropolitan Police. Since the brigade has been under the Metropolitan Board of Works it has simply been crippled in its action. The Board taxes the fire fund heavily for managing the brigade, and the advantages of a responsible personal management, such as would be carried out by Captain Shaw, are sacrificed. Let the Brigade stand alone.

## NETLEY HOSPITAL.

OUR contemporary, the *Builder*, under the head of "A Want at Netley Hospital," makes some very pertinent remarks on the unsuitable construction of the staircases for the carriage of patients up to the wards, and on the want of a lift for that purpose and for the service of the house. He asks "How is it that a building of this magnitude, dating, if we remember rightly, only so far back as 1857, should be unprovided with mechanical lifts?" Our contemporary does not appear to be aware that lifts do exist in each wing of the building, but his ignorance on this point is very excusable, as we believe they are never used. Whether they are so constructed as to be available for the transport of invalids, we are unable to say; but if not it may be fairly assumed that they could easily be made so. Certainly an inquiry should be instituted by the authorities at head-quarters as to the cause of their use being discontinued, and should this depend on their antiquated or defective construction, steps should be at once taken to have them made efficient. We understand there are large water-tanks on the roof of the building, which would render the application of the hydraulic principle to working the lifts a matter of very moderate expense.

## GLASGOW ROYAL INFIRMARY.

THE new buildings and elaborate accessories provided by the Glasgow Royal Infirmary School of Medicine do not seem to have lessened the prosperity of its rival, the dingy old Andersonian School; which, indeed, has astonished friends and enemies alike by showing more signs than ever of vitality. It is understood that the managers of the Royal Infirmary have come to some conclusions regarding the rules they wish enforced to regulate the administration of chloroform in the Infirmary. What these rules are I cannot yet say, but the wisdom of framing any such code is very doubtful. Hitherto the surgeon administering the chloroform has borne the full responsibility of his action in this, as in any other professional matter. It is to be hoped that the managers, in removing chloroform from the ordinary list of drugs and hedging about its use with various conditions and rules, are prepared to share this responsibility with the surgeon.

## MYOSITIS OSSIFICANS.

AT a recent meeting of the Vienna Medical Society Professor Podrazki exhibited a soldier affected with the rare condition which has been termed myositis ossificans. Four weeks previously the man had applied for treatment, on account of an intense inflammation of the muscles on the front of the right upper arm, apparently set up by severe gymnastic exercise. The muscles were large, hard, and uneven, and the elbow-joint was fixed in flexion. The hardness was removed, and some increased mobility was obtained, by massage and the application of cold. At the end of two weeks a hard, round, movable tumour developed in the flexor of the elbow, which was evidently due to an ossification of the brachialis anticus. At first it was movable, the upper part appeared to be cartilaginous, and it was evidently not connected with the periosteum. Podrazki has seen, in the course of nineteen years, two cases in the practice of Pitha quite similar to this in their characters. In those two cases neither iodide of potassium, nor any other treatment adopted, had any influence. In a discussion which followed, Professor Weinlechner stated that he had twice seen similar small spots of ossification in the muscles on the front of the leg, due, in each case, to a traumatic cause. Kundrat expressed the opinion that some supposed exostoses on the thigh proceed from muscles. Their form and seat correspond to certain muscles. Their greater frequency in

men, and especially in muscular individuals, suggest that their origin is traumatic. They constantly become adherent to bone in the course of their growth, and hence are commonly thought to be primary exostoses.

## THE ROYAL BARRACKS, DUBLIN.

VARIOUS paragraphs have recently appeared in the daily press in reference to the alleged insanitary condition of these barracks, and it has been stated that they are most unhealthy, and that numerous deaths have taken place from typhoid fever owing to the bad sewerage. We have made inquiries into the matter, and are in a position to state that during the past seven months there have been either five or six cases of enteric fever, which in a strength of 1134 men can hardly be regarded as an epidemic. Of these three died, one being Mr. Richmond of the Hussars. The drainage undoubtedly has been bad, but it is believed that it is now in an efficient condition, as an extensive system of main drainage has been carried out, more particularly at the cavalry portion of the barracks, while the floors of the infantry portion have been thoroughly cemented.

## SCARCITY OF SUBJECTS IN AMERICA.

A REPORT which has reached us from America shows that the scarcity of subjects in our metropolitan and provincial dissecting-rooms, to which we alluded at the beginning of the winter session, has prevailed there too. Philadelphia is just now excited over the capture of a band of grave-robbers, or, as they are better known in this country, resurrectionists, who were caught with six bodies, intended for the medical college in that town, in their possession. An investigation shows that the robbers had almost cleared one of the cemeteries. The recovered corpses have been identified, and the men are now in gaol waiting their trial. The dearth of material for dissecting is a subject that will shortly have to be dealt with, and some alteration be made respecting the present limited supply.

## THE HOSPITAL SATURDAY FUND.

THE Board of Delegates report that the sum collected this year amounts to £8872, being £500 in excess of the sum raised last year. Of this sum £6318 were the proceeds of collecting-cards in workshops, and £2160 from the street collection, superintended by 900 ladies. We cannot too highly praise the kindness of these ladies; but the result as a whole disappoints us, and is disproportioned alike to the means of the workmen of London, and the sacrifices of the fair co-operators. The fund is not yet worked in a satisfactory way. The collection needs to be taken differently.

## THE ETIOLOGY OF DIPHTHERIA.

FOR some time past diphtheria has been prevalent in and about Pilbright, in the Guildford rural sanitary district; and certain peculiarities as to its development have received much attention from Dr. J. Smith, the medical officer of health. Mr. W. H. Power, medical inspector of the Local Government Board, is now engaged with Dr. Smith in learning all the circumstances under which the disease has arisen and spread; and having regard both to the exhaustive character which the inquiry is taking, and to the nature of Mr. Power's previous investigations into some of the more obscure questions affecting public health, the official report on the subject will be looked for with more than usual interest.

DR. PYLE has been re-elected representative of the Durham University in the General Medical Council.

A CASE tried the other day at the Toulouse assizes possessed no little pathological interest, as one of the three prisoners, a young man of eight-and-twenty, who was accused of committing a series of thefts from shops, had become insane from having, between the time of his arrest and his trial, simulated madness. When first arrested he made several attempts to escape, but finding that there was no chance of this he fell into a state of lethargy and pretended not to understand what was said to him. Three doctors were commissioned to examine him, but they reported him to be perfectly sane, and he was accordingly put into the dock with his two accomplices. He refused, however, to answer the questions which were put to him, and his counsel stated that though he had at first only pretended to be mad he had finally become so in reality. The Court, without directing the jury to acquit him on the ground of insanity, were so far convinced that such was the case that they adjourned the trial and ordered him to be removed to an asylum, pending a fresh examination of him by a specialist from Montpellier.

SURGEON-GENERAL JOHN GIBBONS, C.B., on the retired list of the Army Medical Department, died a few days ago in Dublin in his fifty-eighth year. The deceased was present at the battles of Alma and Inkerman, and at the siege of Sebastopol, for his exertions during which he was specially mentioned in despatches by Lord Raglan. He received the Crimean medal with three clasps, besides the Turkish medal, and was appointed a Knight of the Legion of Honour. He also served during the Indian Mutiny, and was decorated with the Indian medal. He was promoted to the rank of Surgeon-Major in March, 1870, and to that of Deputy Surgeon-General in 1876. In July, 1879, Mr. Gibbons was gazetted a C.B., and last June he was placed on the retired list of the Army Medical Department with the honorary rank of Surgeon-General.

THERE is now in course of erection at Birmingham a magnificent building called The Birmingham and Midland Eye Hospital. The old structure has been found utterly inadequate to the requirements of the 13,450 patients who annually cross its threshold. The committee, of which the Rev. B. Jones Bateman is chairman, have boldly grappled with the difficulty, and a new hospital worthy of its object and replete with the latest and best appliances, both surgical and sanitary, is gradually being reared. It is intended that the building shall be a model of what such an institution ought to be. The estimated cost complete is £20,000. Many munificent donations have already come in, one notably of £5000 from Mrs. Barrs.

THE total number of vaccinations performed in Bengal in 1881–82 (says the *Indian Medical Gazette*) was 1,349,607. The percentage of success was 98·39. The compulsory Vaccination Act was introduced during the year into the towns of Rungpore, Rampore-Beauleah, Soory, Hooghly, Chinsurah, Pubna, Bagrah, and Howrah, and its working was unattended with difficulty. In the North-Western Provinces and Oudh the number of vaccinations was 767,295, with a percentage of success of 91·70 in primary operations.

MR. LUTHER HOLDEN, hon. secretary of the Stone Testimonial Fund, asks us to state that the Executive Committee of the Fund propose to close shortly the list of subscriptions, and to remind the members of the Committee who have not paid their subscriptions that the money should be forwarded to James Shuter, Esq., M.A., 58, New Broad-street, E.C.

THE completion of the laboratory of the Johns Hopkins University, at Baltimore, has given occasion for the raising of the question whether it were better that the institution should become one of the already too numerous manufactories of practising medical men, or one devoted to the higher teaching of medical science. The *Medical News* (Philadelphia) strongly advocates the latter view, and suggests that the Johns Hopkins institution can, with great benefit, perform precisely the same functions in the United States as the Society for the Advancement of Physical Research does in England.

THE matriculations in the University of Glasgow for the present year number 2270, distributed among the various faculties as follows:—In arts, 1304; in theology, 98; in medicine, 623; in law, 196; in arts and medicine, 20; in arts and law, 16; in arts and divinity, 10; in medicine and divinity, 3. The total number of matriculations last session was 2321. It will thus be seen that the numbers attending the medical classes are well maintained, though at the beginning of the session it was feared that they would show a falling off.

DR. FERRIER is preparing for the press a new and enlarged edition of his work on "The Functions of the Brain," which will embody many new observations and experiments by the author, as well as a critical examination of the various experimental and pathological investigations of recent years bearing on the question of the localisation of cerebral functions.

DR. RUSSELL, F.R.S., Lecturer on Chemistry at St. Bartholomew's Hospital, is engaged, we understand, in making some experiments on London fog at the request of the Meteorological Council, his special object being to ascertain its chemical constitution. We trust that the investigation will be followed by practical benefit to the inhabitants of the metropolis.

THE death is announced of Dr. Dickson, President of the College of Physicians and Surgeons of Kingston, Ontario. Dr. Dickson began his professional studies at Belfast and Glasgow. He was the first President of the Medical Council of Ontario.

THE next Poor-law Conference for Yorkshire will be held in Halifax on the 21st December. The Right Hon. James Stansfeld, M.P., will preside, and his address is to be on "Recent [i. e., last session's] Poor-law Legislation."

PROFESSOR CURNOW, M.D., has been appointed Dean of the Medical Department of King's College, in succession to Professor Bentley, who has retired after nearly twenty years' service.

DR. FLAMINIO TASSI of Siena has published a report of four cases of erysipelas, which rapidly yielded to a saturated aqueous solution of picric acid, applied morning and evening with a camel-hair brush.

MR. H. F. MORLEY has been authorised by the Council of University College, London, to give a course of advanced lectures on Organic Chemistry.

WE have received from Mr. Fradelle of Regent-street an excellent photograph of the late Sir Thomas Watson, Bart.

AN outbreak of measles of a very serious character has within the past few days taken place in Newry.

# Public Health and Poor Law.

## LOCAL GOVERNMENT DEPARTMENT.

### REPORTS OF INSPECTORS TO THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

*Enteric Fever at Galgate.*—The village of Galgate lies within the rural sanitary district of Lancaster and about four miles to the south of Lancaster town; it is enclosed on three sides by hills; it lies on a soil consisting of sand and gravel; and contains a population of 743 persons, who occupy 166 houses. Owing to the prevalence of enteric fever there the place has recently been inspected by Dr. Barry, one of the medical inspectors of the Local Government Board. As a rule the inhabitants are well housed, and the main sewers are efficiently constructed, and are maintained in good working order; but in other circumstances affecting health matters are far less satisfactory. Some of the wells have been voluntarily abandoned on account of their obviously polluted state, and as regards the seventeen that remain there can be little doubt but that many are equally subjected to pollution; indeed, Dr. Barry's description of the filthy surroundings of some of them, taken in conjunction with the porous nature of the soil in which they are sunk, amply suffices to show the risk of fouling which they must constantly undergo. Middens-privies prevail in the place, and some of the conditions of excrement disposal, both as to insufficiency of privy accommodation and as to filthiness of accumulations about houses, indicate neglect of a grave character. In 1881, apparently, enteric fever was introduced into Galgate and occasional cases occurred up to the end of July in this year, when the disease became more intense, some nineteen persons being attacked during the six succeeding weeks. The outbreak was, however, of a circumscribed character, and it was at once apparent that it was in no way due to any special milk-supply. Seven households were affected and they procured their milk from three independent sources, which afforded a supply to the village generally. But with one exception all the persons attacked lived in houses having one water-supply—namely, that derived from "Makinson's well." The exceptional instance became also of crucial importance in deciding as to the cause, for the patient, though living far away from the suspected well, had been in attendance on a prior case of the disease at a house supplied by it, and she had there partaken of it. The intensity of the incidence of the disease, as in all outbreaks of enteric fever due to water, was mainly upon those between the ages of five and twenty-five years; thus from five to fifteen years the rate of attack was 66·6 per cent. of the total, and from fifteen to twenty-five years it was 41·1 per cent., the infants and the aged almost or altogether escaping. As regards the well itself, the description of its surroundings shows conclusively the facilities that existed for its pollution both excrementally and by other filth, and if further proof were wanted to identify its use with the prevalence of the fever it will be found in its chemical ingredients and in the fact that on its disuse by the inhabitants the outbreak immediately ceased. Unfortunately the story of the epidemic is associated with one of those misunderstandings between officers of health and their fellow practitioners, which, though happily not of frequent occurrence, tend seriously to bring disrepute upon the profession. In this case the medical officer of health, failing, as Dr. Barry says, "to secure the co-operation of" another practitioner, "was refused admission into the houses in which the disease was reported to exist, and hence he was unable to take any special action in the matter." On the other hand, the same officer appears not to have attached sufficient value to the indications of water-pollution which existed, and thus it came to pass that there was an all but complete absence of "that hearty co-operation so necessary in these cases." Dr. Barry concludes by strongly urging the necessity of a proper water-supply and an improvement in the means of excrement and refuse disposal for the village.

### FEVER AT THE SEVERN TUNNEL WORKS.

At the meeting of the Bristol Urban Sanitary Authority on the 7th inst., Mr. Davies, the medical officer of health, reported the existence of typhus and enteric fever to a serious

extent amongst the workmen employed at the Severn Tunnel works. He knew, he said, of at least twenty cases in Bristol and the Barton Regis districts which could be directly traced to the works. These did not include any cases under the care of private practitioners or of club doctors. Three deaths had already occurred from the above-named fevers. Mr. Davies thought that Dr. Bond, who appears to have already reported on the outbreak, had somewhat under-estimated its severity.

### THE DRAINAGE OF THE LOWER THAMES VALLEY.

The Lower Thames Valley Main Drainage Board have applied to the Local Government Board for a provisional order to extend the time allowed for carrying out the powers for which they were formed, and to suspend the penalties for permitting the flow of sewage into the river Thames. At the ordinary monthly meeting held on the 7th inst., a communication was received from the Local Government Board, intimating that an inquiry would be held with regard to such application. A hope was expressed that the forthcoming inquiry would not occupy another forty-five days, and cost the constituent authorities another £45,000.

## VITAL STATISTICS.

### HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5453 births and 3794 deaths were registered during the week ending the 9th inst. The annual death-rate in these towns, which had been equal to 24·2 and 22·3 per 1000 in the two preceding weeks, rose again last week to 23·4. During the first ten weeks of the current quarter the death-rate in these towns averaged 21·9 per 1000, against 21·8 and 21·2 in the corresponding periods of 1880 and 1881. The lowest death-rates in these towns last week were 16·2 in Derby, 16·5 in Leicester, and 17·5 in Plymouth. The rates in the other towns ranged upwards to 29·4 in Blackburn, 31·0 in Leeds, 31·2 in Hull, and 35·5 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns were 472, showing an increase of 45 upon the low number in the previous week; 119 resulted from measles, 110 from scarlet fever, 81 from "fever" (principally enteric), 81 from whooping-cough, 39 from diarrhœa, 29 from diphtheria, and 13 from small-pox. The lowest death-rates from these zymotic diseases occurred in Brighton and Plymouth, and the highest in Newcastle-upon-Tyne, Liverpool, and Sunderland. Measles caused the highest death-rates in Hull, Cardiff, and Sunderland; scarlet fever in Blackburn and Newcastle-upon-Tyne; whooping-cough in Portsmouth and Leeds, and "fever" in Sunderland and Liverpool. The 29 deaths from diphtheria in the twenty-eight towns included 20 in London and 3 in Sunderland. Small-pox caused 5 deaths in London, 6 in Newcastle-upon-Tyne, and 1 both in Wolverhampton and Nottingham. The number of small-pox patients in the metropolitan asylum hospitals, which had been 68 and 70 on the two preceding Saturdays, declined to 62 at the end of last week; and only 5 new cases of small-pox were admitted to these hospitals during the week, against 7 and 15 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had steadily increased from 330 to 424 in the four preceding weeks, further rose to 447 last week; this number was, however, 41 below the corrected weekly average. The causes of 87, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Plymouth, Birmingham, and Cardiff. The proportions of uncertified deaths were largest in Birkenhead, Salford, and Halifax.

### HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 24·3 and 24·8 per 1000 in the two preceding weeks, rose to 28·0 in the week ending 9th inst., and exceeded by no less than 4·6 the mean rate last week in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 78 and 88 in the two previous weeks, rose to 128 last week, and were equal to an annual rate of 5·5 per 1000, or 2·6 above the rate from the same diseases in the English towns. The fatal cases of whooping-cough, which had been 26, 19, and 21 in the three preceding weeks, rose to 39 last week, of which 21 occurred in Glasgow, and 11 in Dundee. The 24 deaths from diphtheria also showed an increase upon recent weekly numbers, and included 13 in Glasgow, and 3 each in Edinburgh, Greenock, and Paisley. "Fever" was also more fatal than it had been for some time, and caused 19 deaths, of which 7 were returned in Edinburgh, and 5 both in Glasgow and Aberdeen. The fatal cases of scarlet fever which had been 18 and 12 in the two previous weeks, rose again to 18 last week, of which 12 occurred in Glasgow, and 3 in Aberdeen. Twelve of the 16 deaths from measles were returned in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 167 and 139 in the two preceding weeks, further rose to 185 last week, and exceeded by 73 the number from these diseases in the corresponding week of last year. The causes of 100, or more than 15 per cent., of the deaths registered in the eight towns last week were not certified.

### HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been equal to 29·2 and 25·6 per 1000 in the two preceding weeks, further declined to 24·9 in the week ending the 9th inst. During the first ten weeks of the current quarter, however, the death-rate in the city averaged 24·3 per 1000, against 20·7 in London and 19·6 in Edinburgh. The 166 deaths in Dublin last week showed a further decline of 5 from the numbers in the two previous weeks, and included 12 which were referred to the principal zymotic diseases, against 14 in each of the two previous weeks. These 12 deaths included 9 which were referred to "fever" (typhus, enteric, and simple), 2 to whooping-cough, one to measles, and not one either to small-pox, scarlet fever, diphtheria, or diarrhœa. The death-rate from these zymotic diseases was equal to 1·8 per 1000 in the city, while the rate from the same diseases last week was 2·9 in London and 3·6 in Edinburgh. The fatal cases of "fever" in Dublin, which had been 6 in each of the two previous weeks, rose to 9 last week, and exceeded the number in any previous week of this year. The fatality of "fever" in Dublin last week was nearly three times as great as the average rate in the twenty-eight English towns. The deaths from whooping-cough showed a decline from recent weekly numbers. Compared with the numbers in the previous week, the deaths of infants were more numerous, while those of elderly persons had declined.

### THE LARGE EUROPEAN TOWNS.

Messrs. Behm and Wagner have recently issued a return showing population statistics for some of the principal cities of Europe, from which it appears that there are only ninety-two European cities having a population exceeding 100,000. Accepting this return to be correct, the large proportion of such towns situated within the United Kingdom is worthy of note. England alone contains nineteen towns with more than 100,000 inhabitants, in addition to which Scotland contains four and Ireland two towns with populations exceeding this amount. Thus, within the comparatively small area of the United Kingdom are situated twenty-five, or more than a quarter of the ninety-two, European cities reported by Messrs. Behm and Wagner. This proportion is very largely in excess of that which the total proportion of the United Kingdom bears to the entire population of Europe, showing a marked excess of urban aggregation in the United Kingdom, which renders its comparatively low death-rate still more remarkable.

## THE SERVICES.

Surgeon-Major A. F. Churchill, who has been for some time in medical charge of the hospital for women and children at the South Camp, Aldershot, has been placed under orders to embark for Egypt.

Surgeon-General J. A. Hanbury, K.C.B., who was Principal Medical Officer of the Egyptian Expedition, is to remain for the present at Cairo, Sir Archibald Alison considering his presence desirable in consequence of the sickness which prevails among the troops.

The Lords Commissioners of the Admiralty have awarded

to Dr. Henry J. Domville, R.N., C.B., Honorary Surgeon to the Queen, the Good Service Pension of £100 a year for Inspector-Generals of Hospitals and Fleets, vacant by the death, on October 17th, of Dr. James W. Johnston, R.N., Honorary Surgeon to the Queen.

ARTILLERY VOLUNTEERS.—1st Forfarshire (not "Fifeshire," as erroneously given last week): William Chalmers Cowan, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—2nd East Riding of Yorkshire: Acting Surgeon Henry Morris to be Surgeon.

ADMIRALTY.—Staff Surgeon James Bradley to be Fleet Surgeon in Her Majesty's Fleet, with seniority of Dec. 5th, 1882; Staff Surgeon Charles G. Wodsworth, to the *Serapis*; Staff Surgeon Alexander B. Trousdell, M.D., to the *Tamar*, vice Lambert; Surgeon Alexander W. W. Reid, M.B., to the *Tamar*, vice Richardson; Surgeon Alexander P. G. Gipps, to the *Defence*, vice Reid.

# Correspondence.

"Audi alteram partem."

## THE SCOTCH UNIVERSITIES AND MEDICAL LEGISLATION.

*To the Editor of* THE LANCET.

SIR,—Allow me to say that I decidedly object to the detached sentence which you quote in your leader to-day on "Scotch Universities and Medical Legislation," from my evidence before the Select Committee of the House of Commons on March 8th, 1880, being given as a fair or sufficient representation of that evidence, or of my views on the position and duties of the Scotch universities. The sentence you quote was a suggested amendment on a particular clause of a Bill then before Parliament. You will find the general view of our Faculty clearly expressed in the second paragraph of the paper from which you quote (Appendix No. 1, page 29). That was only one of the conditions, and my answer regarding it (No. 35) was: "That is so as regards that point." But you may find my views stated concisely in the evidence given last year before the Medical Acts Commission, in Scheme No. I., with reasons, the plan which we think ought to be adopted; and in Scheme No. II. one which, "if it be considered desirable to combine universities and corporations in a general joint scheme," "he thinks would interfere less than any other with the university system of Scotland, if applied in the manner he will explain." Along with the six heads of that scheme please note the four conditions attached (p. 307, and farther in No. 5846), and, preceding that scheme, the "considerations concerning joint schemes in which it is proposed to combine universities and corporations."

Since the evidence given from the Scotch universities before the Select Committee of the House of Commons in 1880, and before the Medical Acts Commission in 1881 was published, not a stone has been cast at the Scotch universities, and it is in vain to endeavour to repeat the old cry of the Scotch universities standing in the way. Our system is one to be followed, not to be decried and interfered with on account of the interests or jealousies of London corporations, or to suit the notions of English universities, which have done little for medical education in the past, and cannot do much for it in the future. Look at the boasted English Conjoint Scheme of 1878, the outcome of some seventy conferences, with its sixteen apothecaries on the examining board, and not a single examiner from the universities, although it was put forward as a scheme which included the universities. That is the kind of joint board we may expect from a council in which English votes predominate. That the present system of registration on incomplete qualifications ought to cease no one can hold more strongly than I do, but in the granting of such qualifications the Scotch universities have ceased to have any part. If the jealousies or interests of corporations continue to prevent their combining to form a joint examination in each metropolis, they must be made to do so by the strong hand of the law, but in doing so it is neither necessary nor just to harass the students of our universities with additional examinations, or to lay expense on them, because London corporations require a certain sum of money, or for the sake of the name without the reality of uniformity. The Scottish universities, while ready to render every help to apply remedies which are required in the public interest, will doubtless feel it to be their duty to endeavour to prevent all such impositions being placed on the large body of students whom they educate.

It is in vain for our English friends to try to revive the cry that the Scotch universities stand in the way. That cry did duty some years ago till its hollowness was exposed, and the guns of the London corporations and English universities were turned against themselves. Let our English friends rather come to Scotland and see how thoroughly its universities teach and examine, and try to follow our example if they can.

I am, Sir, yours faithfully,

Aberdeen University, December 9th, 1882. JOHN STRUTHERS.

*To the Editor of* THE LANCET.

SIR,—While acknowledging, as in duty bound, your very paternal advice and warning to the Scottish universities on the basis of my letter to Dr. Glover, I think it is none the less necessary to remark that they will be extremely ill-advised (in my opinion), if they allow themselves, to be led by you prematurely, either to approve or to resist medica legislation, which is, as yet, in the future. When the Bill, which is expected and desired from Lord Carlingford and Mr. Mundella is actually before us, the universities will no doubt consider it, both as to principles and details, with every desire to aid in the settlement of a long-vexed question. Therefore I cannot help thinking that the heading you prefix to my letter. "The Opposition of the Scottish universities to Medical Legislation," is, so far, misleading, and is not borne out by anything in the letter itself. The deputation to the Lord President in several points, as I believe, misrepresented the existing state of opinion in Scotland; and I took the opportunity, while correcting a positive error of statement as regards myself, to enter a caveat against these more general, and, to me, very palpable, misrepresentations. Lord Carlingford, indeed, made, as regards some of these, the very judicious remark: "Scotland is a country that will always make its voice heard." The Lord President of the Privy Council, in 1878, in Committee on the passing his Bill of that date through the House of Lords, unfortunately placed himself entirely in the hands of advisers who were considered in Scotland to be adverse to the opinion of the Scottish universities, and much of the feeling of "opposition" to which you allude may be traced to that fact. The Scottish universities are, as THE LANCET freely admits, in charge of an educational interest equal to that of all the London schools put together, and it is out of the question to suppose that they are to refrain from opposing whatever they may regard as injurious to that great interest. They may possibly prefer, as I do, the scheme of Professor Huxley, or that of Professor Turner, to that contained in the report itself; but they are not on this account "opposed to any well-considered legislation," or subject to the imputations contained in your leading article as regards their motives. Let me add, that they are very sensible of the evident care and consideration given to the whole difficult subject by the late Royal Commission.

I, am, Sir, yours truly,

Glasgow, Dec. 12th, 1882. W. T. GAIRDNER.

## "PICRIC ACID AND SUGAR TESTING."

*To the Editor of* THE LANCET.

SIR,—I am quite ready to leave the subject of picric acid and sugar testing in the hands of Dr. Johnson, and should not have troubled you with a further communication did I not feel that his remarks about sulphides in relation to the urine call for a rejoinder.

Dr. Johnson says, "But Dr. Pavy, in his letter, goes on to state that 'sulphides of ammonium and potassium are capable of being generated by boiling urine with potash.' This, so far as regards normal urine, I am told by much better chemists than myself is an improbability, and cannot be accepted upon the mere *ipse dixit* even of so great an

authority as Dr. Pavy." Whilst writing this last passage Dr. Johnson's memory must have failed him upon the literature of the subject, or his pen for the moment been permitted to run wild. The statement is nothing more nor less than what is to be found in standard works referring to the chemistry of the urine. Simply looking at the books which happen to be before me on my shelves, I find that Parkes, Sanderson, Kirkes, Odling, and the late Dr. Golding Bird all speak of a certain amount of unoxidised sulphur existing in the extractives of the urine. This, in other words, means the capacity for producing a sulphide on boiling with potash. Neubauer and Vogel go further, and say, "Sulphuretted hydrogen is sometimes, though very rarely, found in the urine. Its presence is readily ascertained by its property of blackening paper moistened with a solution of sugar of lead." They "had once an opportunity of examining for a length of time urine which contained sulphuretted hydrogen; it was periodically secreted by a man whose lower extremities were paralysed through gout." They suggest even that sulphuretted hydrogen may be sometimes formed by a reduction of sulphates, and say, "It has been already stated under the head of sulphuric acid, that sulphates, when exposed to a moderately high temperature, in contact with organic substances, soon give rise to the formation of sulphuretted hydrogen; and in this way we may, perhaps, account for its formation in the urine."

Next, Dr. Johnson says: "He [Dr. Pavy] further states, 'that a sulphide is actually produced by the action of potash upon healthy urine is shown by the well-known fallacy that Moore's, or the liquor potassæ, test is open to from the presence of a little lead.' I confess that this statement surprises me not a little." Again, a statement which thus gives surprise to Dr. Johnson is to be found in text-books under the head of "Moore's Test." The late Dr. Golding Bird, in his work on "Urinary Deposits," says: "Dr. Rees has drawn attention to an important error which may arise in the indications of this test [Moore's] from the solution of potash employed containing lead. When this is the case the sulphur in the urinary excretion produces a dark colour with the lead, and might lead to a suspicion of the presence of sugar where none exists." Dr. Odling, in his work on "Practical Chemistry," says: "Moreover, caustic potash frequently contains lead; and this impure reagent, acting upon the sulphur of the ordinary urine, or more decidedly in albuminous specimens, will occasion a brown discolouration." My own observation confirms these statements, notwithstanding Dr. Johnson says, "It has often happened to me in boiling *albuminous* urine with liquor potassæ to find the liquid darkened and a subsequent precipitate of sulphide of lead, the sulphur being a constituent part of the albumen and the lead an impurity of the potash; but I have never observed this change to occur in *healthy* urine." The fact is, everything depends upon the delicacy or roughness with which the observation is carried out, and with *healthy* urine the production of sulphide of lead is easily susceptible of demonstration. Naturally, with albuminous urine, the albumen forming a source of sulphur in addition to that due to the extractives, a much more marked result is observed. If a couple of test tubes be taken and a small quantity of a solution of potash be placed in each, and to one a little acetate of lead be added, we shall have a representation of Moore's test in a proper state and contaminated with lead. If now some concentrated (I do not mean artificially concentrated) healthy urine be added in equal quantity to each, and the two be boiled for a short time, no difficulty will be experienced on looking at the two tubes side by side in seeing a colouration due to the formation of sulphide of lead. The amount of colouration varies according to the degree of concentration of the urine or the amount of extractives present, and in medium or low specific gravity specimens the effect may not be sufficiently marked to be perceptible.

I am, Sir, your obedient servant,

Grosvenor-street, Dec. 12th, 1882. F. W. PAVY.

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*To the Editor of* THE LANCET.

SIR,—In my letter to you last week I omitted to reply to Dr. Pavy's suggestion, that in my "original observation on the two specimens of albuminous urine the albumen had something to answer for in the result." The result of the following simple and easily repeated experiment negatives that idea. A specimen of urine containing as much albumen as, when coagulated, occupied one-fourth the column of urine, was freed from albumen by filtering after the coagulation of the albumen by boiling. The filtrate, after the separation of the albumen, and a portion of the highly albuminous urine were then tested separately, but in precisely the same way, by boiling with potash and picric acid, and with results perfectly identical. The colour in the two test tubes was indistinguishable. The presence of the albumen did not increase or appreciably modify the reaction with picric acid and potash. This result is in accordance with my son's more elaborate observations on the effect of mixing a sulphide with the urine, and described in his letter to you.

After comparing the effect of the picric acid and potash test on the urine before and after the removal of the albumen, I tried the experiment of boiling with potash and a few drops of solution of lead. The contrast was very striking, for while the albuminous urine was speedily blackened by sulphide of lead, the urine which had been freed from albumen underwent only that slight deepening of colour which usually occurs in normal urine when boiled for a minute or two with liquor potassæ. It appears, then, that the presence of sulphur, in combination with albumen in the urine, in no way interferes with the picric acid and potash test for sugar. It is therefore unnecessary to separate the albumen before testing for sugar in this way, although the separation is necessary before testing with Fehling's solution, which would otherwise be decomposed by the sulphur in the albumen.

I am, Sir, yours faithfully,

Savile-row, Dec. 11th, 1882. GEORGE JOHNSON.

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*To the Editor of* THE LANCET.

SIR,—In his letter in your issue of Dec. 2nd, Dr. Pavy seems to conclude that the colour produced by boiling picrate of potash solution with potash alone is the same as that produced by sugar, and he says that I confirm him in that statement. It is true that a certain amount of red colouration is observed, even when no sugar is present; but I have made an observation during the last week which proves that this colour is not due to the same cause as that which is seen on boiling with saccharine liquids. If a little solution of starch be added to the alkaline picrate test, and the mixture boiled, no red colour is developed, the liquid remaining yellow; but on introducing some sugar solution and boiling, the characteristic red tint is at once produced. It is quite probable that this inhibiting action of the starch will considerably increase the delicacy of the test, since it enables us to start with a more nearly colourless solution.

As regards the action of alkaline sulphides upon alkaline picrate, there is no doubt that the colour produced by these salts on boiling their solutions with potash and picrate of potash is identical with that produced by grape sugar in the same circumstances, and the test appears to be as delicate for alkaline sulphide as for sugar. But Dr. Pavy makes a bold assertion, quite unsupported by experimental evidence, when he says that "a sulphide is actually produced by the action of potash upon the constituents of healthy urine;" for the only evidence he quotes appears to be of doubtful accuracy, the darkening of the urine by liquor potassæ in presence of lead being only observed in the case of albuminous specimens.

I have made a series of experiments, which have led me to the belief that (1) no alkaline sulphide is formed when healthy urine is boiled for some time with liquor potassæ, and (2) that even if a trace of alkaline sulphide were produced, it would not in any way interfere with the application of the picrate test for grape sugar to the urine containing it.

The method of experimentation employed will be sufficiently illustrated by the following example:—Twelve fluid ounces of normal urine, perfectly free from albumen, but producing the usual red colouration on boiling with alkaline picrate, were mixed with six fluid ounces of a 2 per cent. solution of potash, and the mixture boiled down to eight fluid ounces. The concentrated alkaline liquid was now made up to twelve fluid ounces (the volume of the orignal urine) with distilled water. On testing with picrate and boiling, not the slightest darkening of tint could be perceived beyond the slight reddish colour yielded by the picrate itself, a solution containing the same quantity of picrate and of potash being boiled at the same time in a separate tube and used for comparison. Moreover, the addition of nitro-prusside of sodium solution to another portion of the alkaline

urine gave no indication of the presence of sulphide, though the absence of any substance interfering with the reaction was proved by adding a drop of an aqueous solution of sulphuretted hydrogen gas to the alkaline liquid containing nitroprusside, when a deep colouration was at once produced. On adding a little $H_2S$ water to the alkaline urine (boiled as above), containing picrate and again boiling, no red colour was observed, though lead acetate produced a dense black precipitate in the liquid; and, indeed, a considerable quantity of sulphide must be added to alkaline urine before any indication can be obtained of its presence by the picrate test, though this test is excessively delicate when applied to pure solutions of alkaline sulphides.

The explanation of the above results is self-evident to any chemist. It is well known that solutions of glucose are easily decomposed by boiling even with dilute alkalies. It is also well known that there are unoxidised sulphur compounds in healthy urine. Dr. Pavy suggests that these sulphur compounds may be converted by boiling with potash into alkaline sulphide, which may in its turn give a colour when boiled with picrate identical with that produced by sugar. If Dr. Pavy's suggestion were correct, we should expect to find the concentrated alkaline solution giving distinct evidence of sulphide with the picrate test, whereas it gives no indication at all. In short, so far from any compound being formed by boiling the healthy urine with potash, which gives a red colour with picrate, the substance or substances which do give this colouration are destroyed altogether by such treatment; and, as grape sugar is similarly disintegrated, the result of this further investigation has been to add an additional confirmation to Brücke's original statement, that small quantities of grape sugar are present in healthy human urine.

I am, Sir, yours truly,

King's College, Dec. 4th, 1882. G. STILLINGFLEET JOHNSON.

## DIPHTHERIA AND TYPHOID.

*To the Editor of* THE LANCET.

SIR,—Will you permit me as a pupil, and, in an humble way, coadjutor, of William Budd—of revered memory in medical science—in the investigations which first led to the recognition of the nature of typhoid and its mode of communication, and in the experiments that far-sighted and indefatigable pathologist made with regard to the nature and propagation of diphtheria and the kindred diseases, to point out that there is no such rarity as you suggest in the co-existence of the two maladies. As a matter of clinical fact—a fact too commonly overlooked, if, indeed, it be widely recognised,—typhoid fever is *generally* preceded by an affection of the throat, which if minutely examined will be found to be characterised by the presence of minute pellicles of diphtheritic membrane, usually situated on the upper and posterior surfaces of the tonsils, and nearly always accompanied by a few small patches in the fauces. This is particularly noticeable in the Paris fever. There would seem to be a tendency to the development of this membrane, in *direct* proportion to the intensity of the poison and the vigour of the "constitution"—if I may use this term—of the patient attacked, and in *inverse* proportion to the rapidity with which the glands of the intestine are infected. To state the results of inquiry—somewhat too dogmatically perhaps,—it may be said when a patient is infected by the specific morbies of diphtheria or typhoid, the poison being the same in either case, it depends on the subject more than the disease whether the malady will take the form of "diphtheria," conventionally so-called, or of "typhoid fever." And in a case such as that on which you comment this week, in which the diphtheritic throat affection was strongly marked at the outset, there would, and probably will, be special danger of hæmorrhage; not from deep ulceration, but from the rupture of minute vessels in the course of the disease, when the diphtheritic sloughs are thrown off from Peyer's patches; the hæmorrhage, if it occur, being preceded by the appearance of exceedingly minute streakings of *bright* blood in the yellow-ochre-like (Budd) portions of the stools.

Another point of interest which I should like to mention relates to the susceptibility of patients to diphtheria and typhoid fever respectively. I believe the two maladies are so related that one may be employed—or will probably hereafter be employed—as a prophylactic of the other. Experiments made on monkeys in the days before the "anti-vivisection" craze—that most pernicious bane of science—showed that the malady might be produced in a very mild form by direct inoculation; and, except that the amount of evidence collected was not sufficient for the absolute proof, that when once the organism had been infected with diphtheria it was not likely to have typhoid badly. I have now in recollection cases of the kind in which infection with typhoid subsequent to the infection of diphtheria was sufficiently distinct to cause the subject to communicate the typhoid to other subjects who had the malady fully developed, but only to show the symptoms of typhoid in its own case in a very mild degree.

There is therefore no reason why diphtheria and typhoid should not co-exist, not, as you assume, as two distinct diseases, but as one and the same disease in two forms. It is *not* rare to find these two forms together; but the throat affection is very commonly overlooked. The non-recognition of typhoid in the case of Mr. Fawcett probably arose from the delay which occurred, and which commonly happens, in the discovery of the "spots" in cases in which the diphtheritic throat affection is strongly developed, as a prodromic disease. The "spots" of typhoid, if we disregard for the moment the Irish type of the fever, must be considered as bearing a direct relation to the degree of the intestinal affection—I mean the degree of the disturbance set up in Peyer's patches in what may be called the eruptive stage of the disorder. Those who treat diphtheria would confer a benefit on the science of pathology—the pathology of *existing* disease—if they would in all cases look for typhoid spots. I believe there is generally some, though not great, irritation of Peyer's glands in diphtheria, and when this is strongly marked there ought to be "spots."

I am, Sir, yours faithfully,

Welbeck-street, W., Dec. 9th, 1882. J. MORTIMER GRANVILLE.

*To the Editor of* THE LANCET.

SIR,—The illness of the Postmaster-General has raised the question of the co-existence of diphtheria and typhoid fever, and which, from the general consent on this point of the medical journals, must be considered to be of rare occurrence. It may, therefore, be thought right that I should at the present time put on record the following case, which occurred in my practice:—

M. B——, a housemaid in a family living in the neighbouring village of Aston Clinton, was, after a week or ten days of general malaise and aversion to work, on December 12th, 1881, seized with a rigor, which was quickly followed by great heat of skin, excessive pain in the head, spine, and legs, extreme restlessness, and slight delirium, symptoms leading to the belief that it was a case of cerebro-spinal meningitis. In a few days this highly excited state of the nervous system having somewhat subsided, soreness of throat, with slight swelling of the cervical glands, was complained of, and patches of diphtheritic membrane were discovered on the uvula, soft palate, and tonsils. About the end of the week the patches had separated and peeled off; and the bowels, which up to this time had been sluggish, began to act more freely. A dull, heavy state, with much despondency, now supervened, and on examination rose spots were discovered on the chest and abdomen. The case was now clearly one of typhoid fever. From this time the patient progressed favourably, diarrhœa being controlled by scruple doses of the carbonate of bismuth, given in warm milk, until January 21st, 1882, when numerous spots of purpura with ecchymoses, the result of slight pressure, appeared, more especially on the arms and legs; and on the 23rd I found there had been, during the night, a very considerable oozing of blood from the gum adjacent to the stump of a carious tooth. This bleeding was with great difficulty arrested by pressure made with pieces of lint steeped in the strong solution of the perchloride of iron, but for several days it continued to recur. There was, too, considerable hæmorrhage from the bowels, and also from the vagina, to restrain which frequent doses of the tincture of perchloride of iron, with liquid extract of ergot, were given. After being reduced to the most extreme state of anæmia, the girl eventually recovered, and left for her home in Kent on the 6th of March.

The case is interesting, as showing the extreme difficulty

of forming a correct diagnosis in the early stage of typhoid fever. To give an opinion that a case is one of cerebro-spinal meningitis, then of diphtheria, and ultimately of typhoid fever, is, to say the least, embarrassing, and likely to be productive of a loss of confidence in the professional acumen, more especially in young practitioners.

I am, Sir, your obedient servant,

Tring, Dec. 11th, 1882. EDWARD POPE.

## "THE DISCOVERY OF TRICHINA SPIRALIS."

*To the Editor of* THE LANCET.

SIR,—Our great anatomist does himself injustice. He speaks slightingly of the "mere zoological elucidation of a species," yet it was on this very point that Sir James Paget generously went out of his way to remark that Professor Owen's "admirable memoir" was "much more complete and exact in zoological detail than anything he himself could have written." The concession was too liberal. Most foreign writers have remarked upon the "incompleteness" of Prof. Owen's record. Leuckart has a long comment to that effect. Kestner says: "The illustrious naturalist gave a very imperfect description of the parasite;" and the same author has made observations on Dr. Arthur Farre's more complete description. It comes to this, that in the matter of zoological status, the position assigned by Prof. Owen to the worm was altogether at variance with the facts observed by Paget and Farre—facts of organisation not observed by himself, although he was, as we are now told, so much "concerned in the working out of the evidences of the structure and zoological position" of the parasite. Mr. Hilton's guess placed the worm-specks within the helminths, and thus Hilton's conjectural allocation came nearer to the zoological truth than Prof. Owen's deliberate opinion, since, to employ Leuckart's words, Prof. Owen thought that the worm "agreed with the helminths only in its mode of life." As Prof. Owen's memoir gave a great impulse to the study of parasites, and as Leuckart has said "der Genusname Trichina (Owen) verbleiben muss," it seems to me that such concessions—added to other stores of scientific capital, the greatness of which no one disputes—ought to satisfy our venerated countryman.

I am, Sir, yours truly,

London, Dec. 10th, 1882. T. SPENCER COBBOLD.

## NEWCASTLE-ON-TYNE.

*(From our own Correspondent.)*

AT Gateshead the subject of lead-poisoning has again occupied the attention of the guardians, and the matter was stated to be under the consideration of the Home Secretary. It was proposed that the number of cases of lead-poisoning which come under the notice of the medical men and relieving officers should be reported to the Local Government Board monthly. It was stated that there were many cases of the lead affection in the workhouse at present, under the care of Dr. Cook, and unless there was some improvement in the lead manufacture the consequences would become very serious to the workers, and ultimately to the ratepayers. There is a good deal of disease now of a zymotic character in the mining and agricultural villages of Northumberland and Durham. At Hunstonworth, an outlying village in Durham, in the Weardale Union, there has been an outbreak of small-pox; the disease was first introduced by a farmer, who had been at Newcastle purchasing stock. It transpired at a meeting of the Weardale guardians that in one house eight persons were found in one bed, including five illegitimate children, three of whom were ill with small-pox. It was proposed to remove the patients to the workhouse hospital at Stanhope, but Dr. Livingstone very properly and successfully resisted this proposition. Apart from the cruelty of transporting patients along twelve miles of a moorland road, he pointed out the dangers as to infection in the more populous place, and showed how the cases could be more safely and successfully treated on the spot, due attention being given at the same time to isolation and disinfection in a temporary village hospital.

As regards the sanitary condition of Sunderland, the Town Council has held two special meetings, and received the recommendations of the health officer (Mr. C. E. Harris), which I am told they are likely to adopt; the report in question goes to the root of the matter, and is a production of labour and much ability. It points forcibly to a more speedy removal of midden contents, a thorough examination of the condition of the sewers, an alteration in the sewer ventilation, the encouragement of the watercloset system of sewerage, a house-to-house inspection by the inspectors of nuisances, an increase in the number of inspectors of nuisances, of whom there are only two for a population of 120,000. The severity of the weather and measles considerably influenced the death-rate of last week. There were 81 deaths, which represent an annual death-rate of 35·4 per 1000 inhabitants. Measles affected the death-rate by 5·2. Of the total deaths 40 were children under five years, and 10 were sixty years and upwards. Among children measles was the greatest cause of mortality, proving fatal to 12, of whom 10 had not reached their fifth year. Half of these deaths occurred in Monkwearmouth.

At the Newcastle Infirmary, I was told the other day, there were 231 patients in the house; the revival of trade and manufactures would seem to augment the number of daily accidents, some of them of a very severe surgical nature. Some cases were admitted of burns lately which presented some unusual points of interest. The cases in question arose from an explosion in an ether distillery, and it was observed in the cases which ultimately did well that the superficial burns or scalds were not blistered, but red, and bleeding, while none of the patients suffered from shock. Mr. Jeaffreson has had some important operations in abdominal surgery. The last was the case of a patient about forty, with a large tumour supposed to be ovarian. After the usual incision and tapping, it was noted that the growth had very deep pelvic attachments; on removing these it was found adherent to the uterus, so much so that it was a moot point as to the removal of that organ; however, it was dissected off, and found to be a cystic sarcomatous tumour. The patient's life was in the balance for some hours, but she may be said to have recovered without a bad symptom. It is nearly three weeks since the operation, at which Drs. William Murray, Cresswell, Garson, and Williamson were present. Mr. Jeaffreson will soon present details of his cases.

As regards the health of Newcastle, there appears to be some increase in small-pox, typhus, and other zymotic diseases. While on this subject I regret to hear of the death from typhus of Mr. C. M. Goyder, at the early age of twenty-six. Mr. Goyder was for some time house-surgeon at our infirmary, but some short time ago he commenced private practice as successor to the late Dr. Maclachlan in this city, and he was making good way in his profession, until he was suddenly struck down with fever. We lately lost another young surgeon here from the same cause, Mr. R. W. Smith, who contracted the disease when visiting some dispensary patients. Another name well known to old students has disappeared from the roll of life in that of Mr. Thomas Craster, who died at the advanced age of eighty. Mr. Craster was connected with the Museum and Anatomical School since their institution. He was what is commonly known as "a character," he had a keen love of his work, and his knowledge of comparative and human anatomy was the wonder of all students, with whom, as well as with the lecturers, he was deservedly a great favourite. Most old students here have sat at the feet of "Tommy Craster," as he was familiarly, but not disrespectfully, called.

Newcastle-on-Tyne, December 13th, 1882.

## SCOTTISH NOTES.

*(From our own Correspondent.)*

As the ever-recurring storm leaves its sad traces along our coasts, the question of the avoidance of death through shipwreck possesses increasing interest. Along the east coast especially, the fishing fleet is subject to dangers which every year seem to claim a larger number of victims; and just at present the excitement caused by these frequent disasters is likely to lead to definite results. The provision of a harbour of refuge at some point on the east coast of Scotland is now looked upon as an absolute necessity by those interested in

our sailors and in shipping; but as usual, the wrangle has begun as to which place shall be so favoured, and it is just possible that local jealousies may afford those holding the national purse-strings a sufficient excuse for overlooking the subject altogether. The recent storms have further demonstrated the necessity for a larger number of life-boats being provided for the same rock-bound coast; an experiment very fully tested at Aberdeen would indicate, that when properly carried out, the spreading of oil over the surface of a raging sea is sufficient to [illegible] still the waters that vessels can easily pass over the dangerous bars found at the entrance of many of our harbours. Mr. Shields, of Perth, has pressed this subject with great assiduity, and his last efforts seem to be his most successful, while the fact that an officer from the Board of Trade was present shows that the authorities do not neglect the matter.

Mr. Murdoch, of Drumwhirn, Kirkcudbrightshire, died last week, having completed his hundredth year in October last. The interest always attaching to the death of a centenarian is intensified in this case by the fact that Mr. Murdoch was the last contemporary of the poet Burns, who had seen and conversed with our great national bard. When a boy it appears that the deceased had done a slight service to Burns, and the familiar and kindly pat on the head by which he was rewarded for the action proved a life-long subject of congratulation to one who till the last retained a great power of story-telling and a wonderful conviviality. His faculties were acute, and till within a fortnight of the end Mr. Murdoch enjoyed out-door exercise freely.

Dr. Andrew Wilson has completed his course of lectures at Perth, given under the direction of the Combe Trust. In the eight lectures many physiological subjects of great interest have been discussed; but the noteworthy fact in connexion with this and similar courses in Scotland is the enthusiasm with which they are supported by the public. The leading citizens, as well as the people generally, were fully represented, and testified to the great value and need of such instruction being rendered available. Only the other day, from the two extremes in the social scale, the cry was for a knowledge of sanitary laws; and the coincidence of Earl Rosebery and a poor woman in the slums of Edinburgh—the former as chairman to Professor Maclagan as Health Lecturer for the night, and the latter at a conference of a novel kind between philanthropists and the very lowest of the people—stating that what was most required for the welfare of the classes they severally represented was sanitary teaching, is worthy of record. Lord Rosebery suggested the wholesale distribution of sanitary tracts, a method of reaching the people recently recommended by THE LANCET. Such leaflets, written by men whose views would command confidence, and gratuitously distributed, would be of great service to the poor and ignorant.

Diphtheria is at present proving most fatal in Dundee. It appears that during October there were seven cases reported, and of these six died, while in November, of sixteen cases, no fewer than fourteen ended fatally. Dr. Anderson, the medical officer, attributed this excessive mortality to deficient drainage, and the sanitary inspector has been instructed to investigate the question in the different districts where the outbreaks have occurred. The statistics of this disease recorded by medical officers of health are useful to place opposite those of men who publish such long lists of successful cases as raise the question whether, after all, they were cases of diphtheria with which those sporadic gentlemen were called upon to deal.

After lengthened consideration the directors of the Dundee Infirmary have determined to devote a separate ward to the treatment of children's diseases, and that the ward shall simply form part of the infirmary managed by the general board. The scheme for a new, or, in any way, independent institution, has been wisely set aside; but any one desirous of naming and endowing a cot can do so by a subscription of £200. The directors do not consider it at all necessary that children should have special ward accommodation, but to prevent the foundation of a rival charity, and in deference to the feelings of those who have interested themselves in the matter, they have resolved upon the above step.

VENTNOR CONSUMPTION HOSPITAL.—An anonymous donor has presented this institution with funds for an additional house and furniture to meet the great pressure of applicants for admission.

## NIGHT LECTURES.

*(From a Correspondent.)*

THE Council of the Royal College of Surgeons in Ireland have passed a resolution refusing for the future to receive certificates of night lectures. This decision, come to so unexpectedly and so late in the session, must prove a hardship to a large class of young men engaged in business during the day, who have not the time to attend lectures during that period, and who were in the habit of dissecting and attending the various courses of lectures in the evening. A man who can obtain his diploma under these circumstances deserves praise for his energy and perseverance. Of course it is a debateable question whether the ranks of the profession should be recruited from this source — that is to say, whether it is probable that men who are otherwise occupied during the day from pecuniary necessity, when admitted members of the profession are likely to add to its honour and dignity. Much may be said on both sides of the question, but what I consider as injudicious is the action of the Council in passing a resolution of the kind referred to, when a large number of students—in one school alone about fifty—have entered for night lectures, paid fees, and proceeded with professional work, on the understanding that their attendance on night lectures would be countenanced as heretofore. Some time ago a correspondence took place between one of the medical schools and the Council on this very subject; but the College, although objecting, did not positively refuse to receive certificates of night lectures, and gave no intimation that they would do so without proper notice. Of course it may be said that the hardship is only nominal, and that those affected by the resolution can go to other corporations; but if I am not misinformed, the Irish College will also decline to receive certificates of lectures from any school at which night lectures are given. If the Council had refused to receive certificates of night lectures after this year it would have been perfectly fair on their part, having given due notice, but under present circumstances the resolution appears oppressive and unjust.

## HYPNOTISM IN PARIS.

*(From an occasional Correspondent.)*

No. V.

I HAVE now gone through the different phases of animal magnetism or hypnotism, as it is now called, to give it a more scientific character, from the days of Mesmer up to the present time, and the different phenomena that may be produced in subjects during this state. These are the cataleptic state, the lethargic state, and the somnambulistic state. The demonstrations of Professor Charcot and Dr. Dumontpallier have hitherto been confined to hysterical and hystero-epileptic females, but we have seen that the same phenomena, whether simulated or not, have also been produced in male subjects. Different methods have also been employed to produce hypnotism. Mesmer and his followers resorted to certain manœuvres called "passes"; Braid enjoined the subject to fix his or her eyes on a bright object held above the forehead; and Professor Charcot hypnotised his patients by placing them before a bright light and asking them to fix their eyes on it. M. Donato, however, thought his own eyes quite sufficient to transmit the magnetic fluid, and did nothing but stare at his subjects to produce the hypnotic state. The great secret consists in the fixing the gaze of the subjects, the result being a peculiar nervous state called hypnotism, from its resemblance to a sort of sleep, and which is produced by a certain influence on the nervous system through the medium of the eyes, or through the imagination. That the magnetiser possessed any special influence himself has long ago been disproved, and, as the late Professor Broca, in commenting on this subject, asserted, "one does not magnetise subjects, the subjects magnetise themselves." There is some semblance of truth in this remark, but it would have been more correct to say that the subjects hypnotised

themselves, though even this does not properly express the real state they are thrown into. I may here briefly describe that state. The eyes of the subject being fixed on an object, the pupils contract at first, and then dilate. This dilatation increases to a considerable extent, then they have a tendency to fluctuate, and if at this moment the operator or anyone else advance the first two fingers of the right hand horizontally and slightly separated towards the eyes, the lids close involuntarily. If after a few seconds the limbs be raised they will remain in the position in which they were placed, and, in fact, the three states already described may be produced. The special senses, besides that of vision, and a certain portion of the mental faculties, become abnormally excited, the symptoms being somewhat similar to the primary effects of wine, opium, and alcohol. When these effects have reached a certain point they are followed by a degree of depression much greater than that observed in the torpor of natural sleep. Here the state of the special senses, and the action of the muscles, may be altered at the will of the operator by simply blowing on the organ or organs it is intended to excite, or on the muscles the operator would render pliable, and which previously had been in a state of cataleptic rigidity. After some rest the other senses return to their primitive state. As has been already observed, a subject once hypnotised has the faculty of hypnotising himself at pleasure by simply holding up his finger and looking fixedly at it, or even at any other object. When this is done only a few times, and after certain intervals, no ill effects may result to the health of the individual, but the operation cannot with impunity be repeated often, as has been amply proved by the communication made by M. Milne-Edwards to the Academy of Sciences already referred to.

The facility with which certain individuals are magnetised has no doubt induced mountebanks and others to turn it to good account for their own personal interest, at the expense of the public; but what is less easily explained is the necessity or utility of producing hypnotism or animal magnetism in hysterical patients in hospitals or elsewhere; for, as a means of diagnosis, it is of little if any value, as the hypnotic state can be so well simulated even by healthy subjects. To physicians and surgeons it is of no practical interest, and to the lay public it is even dangerous, as there are a great number of people already too disposed to believe in all that looks and sounds marvellous. Even as a source of amusement it is dangerous, and as a therapeutic agent it is perfectly useless. In a report submitted to the Academy of Sciences on the 26th of February, 1844, M. François Arago expressed himself thus: "After the experiments conscientiously instituted under the auspices of the Academy in 1784, that which is termed animal magnetism does not exist; that it has nothing that would point to a new force for study; and as to its therapeutic virtues for curing or relieving patients, there is nothing, in consequence, to be expected from it." In another report, Bailly declared that "animal magnetism might exist without being useful, but that it cannot be useful if it does not exist." These truths have the same force now as they had in 1844, for nothing new has been since discovered in it, and animal magnetism or hypnotism is at the present time what it was in the days of Mesmer, a gigantic imposture. It is now the fourth time since its discovery in 1766 that the monster has been brought before the public in this country, but why the French capital should always be selected for its exploits has often been a puzzle to me, unless it be that adventurers of all sorts meet with greater hospitality here, and the Parisians, who are, after all, cosmopolitan in their composition, representing as they do the *élite* and ruffians of all classes and professions of the entire population of the country, have an abnormal thirst for what they term "le progrès." They abhor the *status quo* as nature abhors a vacuum, and this I believe is the explanation of their revolutionary character.

To return to hypnotism in its various forms. That the three states so frequently referred to may exist spontaneously or result from certain morbid conditions of the brain and nervous system is everywhere admitted. With these we have nothing to do; they cannot be simulated, or rather they cannot be produced artificially; and those interested in the subject might read with advantage the remarkable memoir of Dr. Paul Richet, entitled "Etudes Cliniques sur l'Hystéro-épilepsie ou Grande Hystérie," an abstract of which lately appeared in THE LANCET. As for hypnotism, or animal magnetism, to show that its existence is a pure hypothesis I cannot do better than quote the following lines from that excellent dictionary of medicine by Littré and Robin: "In fine, the interest that there may be in the study of magnetism depends, according to certain authors, on our habitual ignorance of all that concerns the physiology of the brain, and this interest is reduced simply to the establishment of the fact that it is easier to produce at first in any single individual than in a portion or the whole of an assembly such an intellectual state, that the data more or less vague obtained by the first are interpreted by the others in the sense in which or towards which it is desired to direct the attention. It is in such a disposition of the brain that is found the explanation of all the singular effects of magnetism, allowance being made for the jugglery by which it is surrounded, effects varying according to the practices of the magnetiser, or according to the credulity and the cerebral disposition of the magnetised." (*Vide* article "Somnambulism.")

## NEW YORK.

(*From our Correspondent.*)

As a commentary to my remarks relating to the Hôtel Dieu at Montreal, I may mention a remarkable and unfortunate circumstance which has occurred there since the date of my visit.

One morning the gardener, in walking across the garden, discovered the dead body of a man. Subsequent inquiry disclosed the fact that the remains were those of a patient who had precipitated himself from the window of a ward situated in one of the upper floors of the hospital. The discovery caused much excitement, and several of the nuns hastened to the spot. One of them, in making a short cut across a bed of vegetables, stumbled over the body of a woman who had also, during the previous night, thrown herself from one of the upper windows of the establishment. The most remarkable circumstance about the affair was that neither of the patients had been missed from the wards. Such evidence of mismanagement will, however, surprise no one who reads the description of the Hôtel Dieu in my last letter. I mentioned that the patients were hid behind the curtains of old-fashioned four-post bedsteads, and I also referred to the entire absence of any member of the medical staff, or the presence of a resident surgeon, the place being wholly given over to the charge of nurses.

The establishment of the Post-graduate College of New York appears to have suggested, or provoked, others to form a similar medical school on the same principle. Thus is announced the "New York Polyclinic," a school of practical medicine and surgery, situate at 214 and 216, East Thirty-fourth-street, New York. The list of directors and the faculty comprise the names of some of the most eminent physicians and surgeons, and the organisation appears a strong one. I would desire the success of both of these schools; but the question arises, Is there room for both? The *Medical Record* takes the ground that the necessity for either hardly exists, suggesting to post-graduates a system of bedside instruction under proper management. The establishment of the second school appears to jeopardise the success of the first, or even both. The result may, however, prove otherwise, and perhaps friendly rivalry may stimulate all concerned to great efforts, which may end in the establishment of both schools on a solid basis. In any case, I presume that "the fittest" will survive.

Much attention has been given on this side of the Atlantic to Dr. Koch's discovery of the special form of bacillus found in tuberculosis. The forms described by Dr. Koch were found, but the theory of their being the active contagion was regarded as far from proved. A new light has been thrown on this matter by Dr. H. D. Schmidt of New Orleans, who at a recent meeting of the Pathological Society of that city gave the result of his tests of the value of Dr. Koch's discovery. Dr. Schmidt is said to have given special attention to this subject for some years, and therefore took great interest in Dr. Koch's researches, and at once put the theory to exhaustive tests. He claims to have demonstrated beyond doubt that the tuberculous bacillus of Koch is simply

a fatty crystal. The report states that "this result was obtained after long and arduous labour, in which the diseased organs of persons who had been affected with pulmonary consumption were minutely and carefully examined. Dr. Schmidt succeeded in tracing the crystals, which were similar in appearance to those discovered by Koch, and evidently the same. To determine their nature Dr. Schmidt subjected the crystals to the action of boiling ether, when they disappeared, proving that they were not germs or organisms." Dr. Schmidt is well known for his microscopical work, much of which has been printed in the journal of the Royal Microscopical Society. I therefore refer to the matter; but it seems hardly possible that Dr. Koch and others could have made such an egregious blunder. Dr. Schmidt says nothing about staining; fatty crystals would hardly take the stain of an aniline dye. From this I infer that Drs. Koch and Schmidt are working on different material.

Lieutenant Schwatcka has sent a long article to the *Medical Record*, of a quasi-medico-scientific character, explaining in detail some of his views on living matter, which will doubtless be gratefully received by the biologists of this and other countries. The article, however, contained much matter of interest relating to his experiences in the Arctic regions in combating that scourge of Arctic explorers, scurvy. Lieutenant Schwatcka travelled 500 miles beyond the reach of civilisation without supplies, and, let it be known at the English Admiralty, without an ounce of lime-juice. It is claimed by Lieutenant Schwatcka, and after his experience his opinion should be received with respect, that fresh vegetables, lime-juice, or other preparations of this nature, are not alone necessary, provided freshly killed animal food can be procured. He found that drinking the blood of animals just killed had a beneficial effect. He also suggests that even raw meat may be used with good results; in fact, anything alive or freshly killed, whether animal or vegetable, and not of a poisonous nature, should be eaten by those who are in a position to be exposed to the ravages of scurvy. Such was the plan adopted by Lieutenant Schwatcka during his eventful and interesting travels in the Arctic regions, with the result of bringing his men home in excellent health and condition. The valuable suggestions of Lieutenant Schwatcka are further confirmed by a letter to the *Medical Record* by Dr. E. F. Brush, who states that scurvy very often attacks the lumber men of Maine, U.S., who are in the habit of eating the large black ants found in the pine trees as a remedy when suffering from this disease. This additional confirmation of Lieutenant Schwatcka's experiences may induce naval authorities to modify their old views that an expedition in the Arctic regions without a supply of lime-juice must at once abandon further progress, and return to their base of supplies.

New York, Nov. 21st, 1882.

## MEDICAL TRIALS.

### HIGH COURT OF JUSTICE: CHANCERY DIVISION.

#### THE STRATFORD PROVIDENT DISPENSARY.

ON Thursday, November 23rd, 1882, at Lincoln's-inn, before Mr. Justice Kay, Mr. Rigby, Q.C., moved the Court on behalf of Dr. Herbert Davies of Finsbury-square, for an interim injunction to restrain Drs. J. A. H. Budgett and W. E. Richardson, and the Stratford Provident Dispensary, their servants, agents, assistants, and others, from issuing or publishing any circulars, forms, cards, or letters, with Dr. Davies' name thereon, or from otherwise representing him to be the consulting physician to the said dispensary. Mr. Rigby in support of the motion stated that so long ago as 1880 Dr. Davies' name was being used in the manner complained of without his knowledge or consent, and on his solicitors calling attention to it at that time, they received in reply a written apology from Dr. Budgett, stating that the act complained of was a clerical error and undertaking that such a thing should not occur again. In August of the present year Dr. Davies, however, again discovered that his name was still being used in contravention of the undertaking and he therefore was compelled to take the present proceedings. The facts of the case being in evidence, his Lordship granted the injunction prayed for.

## PROPOSED COMBINED EXAMINATION BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

A FRESH start has been made in what may become a practical Conjoint Examination for England. On Thursday last the Council of the Royal College of Surgeons appointed seven delegates to meet and confer with a sub-committee of the Royal College of Physicians on the possibility of a combination of the two Colleges for the establishment of a complete conjoint medical and surgical examination. The qualifications of the members of the sub-committee afford sufficient guarantee that no pains or consideration will be spared to accomplish the object proposed. Mr. Spencer Wells (President), Messrs. John Marshall and Cooper Forster (Vice-presidents), Sir James Paget, Messrs. Erichsen, Savory, and Holmes, will represent the Royal College of Surgeons, and Sir William Jenner (President), Sir Risdon Bennett, Sir William Gull, and Drs. Acland, Sieveking, Ord, and Pitman, the Royal College of Physicians.

At the same meeting of the Council the retiring members of the Board of Examiners in Anatomy and Physiology—namely, Messrs. Power, Pick, Rivington, Baker, Lowne, Bellamy, M'Carthy, Langton, and Gerald Yeo—were re-elected for a further period of twelve months.

# Obituary.

## SIR THOMAS WATSON, BART.

To the entire profession and to a very large portion of the public, from the Sovereign downwards, the death of this eminent physician, which occurred on the 11th instant, will be a source of deep sorrow. We purpose now to give a sketch of his very distinguished career.

Thomas Watson was born at Kentisbeare, in Devonshire, on the 7th March, 1792. He was educated at the Grammar School at Bury St. Edmunds, of which Dr. Malken was head master, where he was a contemporary of the late Bishop Blomfield, with whom he always retained an intimate friendship. On leaving Bury school he was entered as a pensioner in St. John's College, Cambridge, of which college his uncle, Mr. Catton, was then a resident Fellow. He graduated B.A. in 1815, being placed tenth in the list of wranglers, was elected a Fellow of his college in the following year, and became M.A. in 1818. According to the rules then in force at St. John's College, no Fellow could retain his Fellowship for more than a short time without being ordained. From this rule, however, two Fellows were exempted, one of whom was to study medicine. A vacancy having occurred he availed himself of it, and retained his Fellowship until he married in 1825. During his residence at Cambridge as Fellow of his college, a period of eight years, he took private pupils, many of whom (including, amongst others, the late Lord Auckland, Bishop of Bath and Wells, and Lord John Thynne) continued their friendship with him in after life. He served the office of junior proctor in the University of Cambridge in 1823 and 1824.

In 1820 and 1821 he attended the medical classes in Edinburgh, and in a letter to his sister dated from Edinburgh he speaks of his intention to return thence in a sloop as being more economical and allowing the carriage of an unlimited amount of luggage. During his residence at Cambridge he made the acquaintance of his future wife, a daughter of Edward Jones, Esq., of Brackley, in Northamptonshire, who, as a favourite niece of the Rev. Dr. William Turner, then Dean of Norwich and master of Pembroke College, was a frequent visitor to Pembroke Lodge. They were married in 1825 in St. Luke's Chapel in

Norwich Cathedral, and in the same year he took his M.D. degree. In the following year Dr. Watson was elected a Fellow of the College of Physicians, and in May, 1827, Physician to the Middlesex Hospital, an office which he continued to hold until November, 1843. For some years after he settled in London practice came very slowly, patients and fees were few, and he was not free from pecuniary cares and anxieties. In September, 1830, he had the great grief of losing his wife, who died suddenly three days after the birth of their second child. In a letter written to his sister a few days after this terrible blow occurs this characteristic sentence: "My business henceforward in this life must be to endeavour to train up the children as nearly as I can as she would have trained them, and so to live as to acquire, through God's blessing, a hope that we may all hereafter meet their poor mother in happiness."

At the opening of the medical school of King's College in the autumn of 1831 Dr. Watson was appointed Professor of Forensic Medicine and what we believe to be his first contribution to medical literature appeared in the *Medical Gazette*, vol. ix., 1831, entitled, "Remarks on the Dissection of Bishop, and the Phenomena attending Death by Strangulation." Bishop had been hanged for the murder of an Italian organ boy, whose body he brought to the dissecting-room of King's College for sale. The late Professor Partridge had his suspicions excited, and gave the man Bishop into custody. He was tried and condemned, and after his execution his body was sent to King's College for dissection. After this Dr. Watson was a frequent contributor to the *Medical Gazette*. The same ninth volume contains clinical lectures "On Pulmonary Hæmorrhage and on Epilepsy." In the tenth volume there are the Lumleian lectures on "Hæmorrhage from the Stomach, Intestines, and Urinary Organs." In the thirteenth volume there is an admirable introductory lecture, delivered at the opening of the medical session at King's College. In the fifteenth volume appears a paper "On the Efficacy of the Vapour Bath in Cases of Diabetes." The sixteenth volume contains two lectures "On Rheumatism of the Heart," and a paper "On the Connexion of Hypertrophy of the Heart with Cerebral and Pulmonary Hæmorrhage." In July, 1832, Dr. Watson accompanied Sir Walter Scott from London to Edinburgh on his last sad journey from Italy to Abbotsford. In "Lockhart's Life of Scott" it is stated that Dr. Watson went the whole way to Abbotsford with Sir Walter; but in a copy of the work which he gave his son Dr. Watson has written the following foot note: "This is a mistake of Mr. Lockhart's. I did not accompany Sir Walter to Abbotsford, but returned from Edinburgh to London."

In 1836, Dr. Watson was appointed Professor of Medicine at King's College, and he continued to hold this office until the spring of 1840, when, at the opening of the newly-founded King's College Hospital, he had to resign either his office of physician to the Middlesex Hospital or his chair at King's College, and he preferred to retain the former office. The resignation of his professorship, which was felt as a calamity by King's College, was attended with this great benefit to the entire profession and the public, that it led to the publication of his admirable lectures on the "Principles and Practice of Physic." The lectures were first published week by week in the *Medical Gazette*. The first lecture appeared on Sept. 25th, 1840 (vol. xxvii.); and the last of the series on Sept. 23rd, 1842 (vol. xxx). In the following year, 1843, they were collected and published in two volumes by Messrs. J. W. Parker and Son, West Strand; a second edition was called for in 1845; and a third in 1848. Two editions have since been published; one in 1857, and, lastly, the fifth in 1871.

The publication of these lectures, admirable as they were universally acknowledged to be, not less for the soundness of their teaching than for their lucid, elegant, and scholarly style, greatly increased the reputation of their author, acquired for him the well-merited title of the Cicero of English medicine, and led at once to a large extension of his practice. The well-known volumes had, for a number of years, probably a larger sale than any other similar work that has ever been published, and we have pleasure in recording here an anecdote illustrative of his publishers' liberality, which was related to us by Sir Thomas Watson. Mr. Parker one day called on him and said that the sale of his lectures, and the profit resulting therefrom, had so far exceeded his (the publisher's) anticipations, that he did not feel justified in sharing the profits equally with the author, according to the terms of their original agreement; he therefore proposed that the author should receive two-thirds of the profits, while the publisher retained one-third. And as a practical illustration of his generous intentions, he handed the author a cheque for twelve hundred pounds. This surely is an example of liberality not unworthy of imitation.

At the College of Physicians Dr. Watson held numerous offices before he was elected President. In 1827 he was Gulstonian Lecturer; in 1830–31 Lumleian Lecturer; in the years 1833, 1834, and 1835 he gave the College lectures on Materia Medica; he was Censor in 1828, 1837, and 1838; on the Council at various times between 1833 and 1868; From 1858 to 1860 he was the College representative on the Medical Council. In 1862 he was elected President, and he held that office for five successive years. The College would have gladly elected him for a sixth period of office; but he declined on the plea of advancing years, and at the annual meeting for the election of President, after referring in grateful terms to the Fellows who had died during the previous year, he bade the College, as their President, farewell in the following eloquent and characteristic words:—"It only remains that I should attempt to do that which I feel to be well-nigh impossible—to embody in any form of words that I can devise the deep and inextinguishable sense of gratitude with which my mind is full for that kindness and trust which have placed me, year by year, on five successive occasions, at the head of the College of Physicians; in other words, at the head of the medical profession in this great country. According to my estimation, already more than once expressed, there is no nobler position in medicine, whether I look before me and around me to the body of men from whom it comes, or backwards to the splendid list of names of those who have preceded me in the presidential chair—Linacre, Caius, Glisson, Sir William Browne, Pitcairn, Sir George Baker; these, to go no later, are but a few of the eminent men and sound scholars with whom it may well be deemed a proud distinction to have one's name in any way associated. But, besides this great and repeated honour—the greater because so repeated—I have much else to thank you for. I have to acknowledge your indulgence towards the many shortcomings of which I am but too conscious. I have to express my thanks for your constant support and counsel in all difficulties, for your unvarying courtesy and deference, for the friendships which my official intercourse with you has formed or strengthened, and most especially for that recent signal and touching evidence of your approbation and esteem shown by your wish to possess within your walls some pictorial remembrance of my unworthy person. Of this high and generous compliment I can never, while life and reason remain to me, be otherwise than most gratefully, and I hope pardonably, proud. Further, I have to rejoice that the happy lustrum during which I have presided over your affairs has been harmonious and peaceful—disturbed by no unseemly quarrels or serious differences among us—stained by no scandal arising within our proper body, and productive, through your exertions and self-sacrifices, of something at least of benefit to the common weal. If I find anything to regret it is that I have not taken larger advantage of the opportunity which you have confided to me of promoting the interests of the College, and of our useful and noble profession.

Still, I must cherish the hope that the College has suffered no abatement of its ancient dignity and renown through my occupation of the office, which I now respectfully render back into your hands. And so, without encroaching further upon your time and in redemption of the pledge which I gave you last year, I bid you, as your President, one and all, a cordial, affectionate, and final farewell."

The "pictorial remembrance" to which he refers is an admirable portrait by his old friend, George Richmond, which was subscribed for by a large number of the Fellows, and which is now amongst the most cherished treasures of the college. A replica is in possession of Sir Thomas Watson's family, and it has been successfully engraved by Samuel Cousins.

Dr. Watson was appointed Physician Extraordinary to the Queen in 1859, and in 1870 one of the Physicians in Ordinary. On the 9th December, 1861, he was summoned to attend the Prince Consort at Windsor in consultation with Sir James Clark, Sir Henry Holland, and Sir (then Dr.) William Jenner, and his attendance continued until the lamented death of the Prince on December 14th. In 1866 Dr. Watson was created a baronet, the honour having been offered to him, as he was informed by the then

Prime Minister, Lord John Russell, by the express desire of Her Majesty. Amongst other distinctions which were conferred upon the great physician, he was elected an Honorary Fellow of his old college, St. John's, at the same time with the late Sir John Herschell. He was Hon. D.C.L. Oxford, 1862; Hon. LL.D. Cambridge, 1864; and Hon. Fellow of King's and Queen's College of Physicians, Ireland.

In 1859, he was elected a Fellow of the Royal Society. For many years he was a most influential member of the Council of King's College, London. During the session 1857-8, Sir Thomas Watson was President of the Pathological Society. In 1868, he became the first President of the Clinical Society; and in his inaugural address he urged upon the Society, with his customary good sense and grace of style, the supreme importance of an endeavour to obtain "more exactness of knowledge, and therefore more direct and intelligent purpose, and more successful aim in what is really the aim and object of all our labours—the application of remedies for the cure and relief of disease."

During the last ten or twelve years of his life he had retired from the active practice of his profession, but continued to take great interest in all that concerned it.

Notwithstanding his advanced age, he enjoyed his usual good health, spending great part of the last summer and autumn with his daughter and his son's family, partly at the seaside and partly at his son's house, Reigate Lodge, Surrey. On Sunday, Oct. 22nd, he had attended the morning service, as usual, at the parish church. On attempting to rise from the table, after lunch, he made a sudden inclination towards the left side, and would have fallen if he had not been supported by his son, who was standing by him. He afterwards took a short walk in the garden, but the left leg was found to be weakened, and he walked with great difficulty. He was seen at once by his neighbour, Dr. Walters, and on the following Wednesday he was visited by his old pupil and friend, Dr. George Johnson, to whom he calmly said, "This is the beginning of the end." There was then some paralysis of the left leg and of the left side of the foot and tongue, but there was no appreciable weakening of the arm. The mental faculties and the power of speech were quite unimpaired. Drs. Johnson and Walters were of opinion that there was probably obstruction by thrombosis in some of the smaller cerebral arteries.

On the following Thursday, Oct. 26th, after some exertion in walking across the room (up to this date he had been dressed daily and had gone downstairs), he was suddenly seized with difficulty of breathing, his face became blue, and he believed himself to be dying. There appeared to have been some sudden failure of the heart's action; but in the course of an hour or two the distress passed off. He was then carried to his bed; and from that day he did not leave his room, and rarely could even be moved from his bed. It is neither necessary nor desirable to dwell on the details of the subsequent seven weeks. The condition was one of increasing weakness, and often of most distressing restlessness. Then there came irritation of the bladder with some retention, for which Dr. Walters was prepared to render the needful aid; but the restless sufferer, with a firm conviction that he had stone in the bladder, insisted on having Mr. Lister telegraphed for; and it was not until Mr. Lister had been sent for and had come a second time that he would allow Dr. Walters to give him the relief which henceforth was required two or three times daily.

During the last few weeks, a little milk with a small quantity of brandy was all the nourishment that could be taken. Weakness and emaciation, with a falling temperature, steadily increased. He retained his consciousness until within the last two days of his life, although his power of speech was latterly much impaired. It was believed that he understood and was gratified by a kind message of inquiry and sympathy from her Majesty the Queen. He was often soothed by the reading of a prayer or a hymn.

At length he sank into a slumber, and so on Dec. 11th, near midnight came the final rest for which he had longed and prayed. To quote his own words with reference to his old and beloved friend, Dr. P. M. Latham, "Ripe in years as he was, and ready in spirit for the solemn change, his death must long be the subject of tender and sacred regret among the nearest and dearest of his surviving family and friends; nor will his memory soon cease to be reverently cherished throughout a much wider circle."

Throughout the trying seven weeks of weakness and of suffering Sir Thomas was most assiduously attended by his kind friend and neighbour, Dr. Walters, and occasionally by Dr. Holman. He was also seen from time to time by his neighbour Dr. Greenhow, who was always ready to render assistance when needed, and he was frequently visited by Dr. George Johnson. We have already mentioned that Mr. Lister twice obeyed the distinguished sufferer's summons. It need scarcely be said that all felt it a privilege to minister to the relief of one so universally revered and beloved.

He has left instructions that his burial in the churchyard at Reigate, shall be conducted without pomp or senseless parade; and it has been arranged that the procession shall leave the house, Reigate Lodge, within five minutes' walk of the railway station, at half-past two this day (Friday), the 15th inst.

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## DEPUTY SURGEON-GENERAL PEARSON.

ON Nov. 20th the death was announced of Mr. Francis Pearson, Deputy Surgeon-General in the Indian Medical Service. Although his name was little known in England, it will long be remembered in Northern India as that of a man who rendered remarkable services to the State and to the public. For nearly thirty years Mr. Pearson, while performing at the same time other interesting but less important duties, was the chief officer in the vaccination department in the North-West Provinces. The history of his work would furnish to the scientific inquirer a collection of facts of extreme value on the whole subject of vaccination, for it is probable that no living man had in this respect greater opportunities for observation than those which Mr. Pearson enjoyed. He began his work about the year 1852 in the Himalayan Provinces of Gurwhal and Kumaon. There was, perhaps, at that time no country in the world in which small-pox was more prevalent or more fatal. Vaccination was hardly known, its advantages were disbelieved, and it was obstructed in every way by the ignorance and prejudices of the people. The Government resolved to check if possible the terrible mortality which was frequently occurring, and Mr. Pearson was appointed with a staff of vaccinators, the strength of which was gradually increased. Although it would have been easy for him to bring other influences to bear, he was wisely content to make vaccination popular by convincing the people that it afforded almost certain protection against small-pox. Before many years had elapsed he was rewarded by an astonishing measure of success. The people became convinced by their own observation that the protection was real; small-pox rapidly diminished, and at last virtually disappeared. Before Mr. Pearson left India, three years ago, small-pox, as an epidemic disease, had long been unknown in Kumaon and Gurwhal, and there was probably no country in Europe in which vaccination had become so universal. Many interesting stories could be told of Mr. Pearson's experiences, and to find a parallel to some of them we should have to go back almost to the time of Jenner. Not the least remarkable cases were those of the crucial experiment in which the professional and hereditary inoculators attempted in vain to inoculate children who had been successfully vaccinated. The great results obtained by Mr. Pearson in the hill districts induced the Government to extend his operations to the plains, and in 1864 he was appointed Superintendent General of Vaccination in the North-West Provinces. The extension of small-pox in so vast a tract, with a population of more than forty millions, was of course a work which will require the labour and care of many years for its completion; but before Mr. Pearson left India in 1879 immense progress had been made, and more than half a million of children were being successfully vaccinated in the North-West Provinces every year. Another interesting chapter in Mr. Pearson's life was the campaign he undertook against the mysterious and deadly disease known in the Himalayan Provinces as "máhámari"—i.e., "the great death." He proved conclusively that this was identical with true plague, and armed with official authority to enforce sanitary regulations he succeeded in completely eradicating it for many years in the district of Gurwhal. Space does not allow us to say more, but this notice of Mr. Pearson's career would be altogether deficient if it made no reference to those personal qualities which formed so strong an element not only in his social but in his official life. He was one of those fortunate men who command obedience and success, not merely by their ability and strength of character, but by

the personal affection and respect which everyone who knows them feels for them. He was buried at Kensal Green Cemetery on Nov. 24th, and many of his friends were present. Among them was Sir John Strachey, who had known him intimately from his youth, and on whom as member of the Government of India, and as Lieutenant Governor of the Provinces in which Mr. Pearson served, the duty had often fallen of acknowledging on behalf of the Government the admirable services which he had rendered.

# Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following Members, having passed the required examination for the Fellowship on the 23rd, 24th, and 25th ult., were, at a meeting of the Council held on Thursday last, duly admitted Fellows of the College:—

Buck, William Elgar, M.A., M.D. Cantab., Leicester; date of Membership Nov. 1872.
Dingley, Allen, L.R.C.P. Lond., Argyle-square; July, 1878.
Gunn, Robt. Marcus, M.B., C.M. Ed., Park-street; July, 1873.
Hardie, Jas., M.D., L.R.C.S. Ed., Manchester; not a Member.
Lane, Jas. Ernest, Norfolk-square; May, 1880.
Prowse, Arthur Bancks, M.B. Lond., Cambridge; July, 1877.
Smith, T. F. Hugh, L.S.A., Wimpole-street; Aug., 1877.
Walters, Fred. Rufenacht, M.B. Lond., Croydon; April, 1880.

One other candidate passed the examination, but not having complied with the regulations of the College, will be admitted at a future meeting of the Council; and seven candidates failed to reach the required standard, and were referred for twelve months.

UNIVERSITY OF LONDON. — The following candidates have passed the recent M.B. (Honours) Examination:—

MEDICINE.

FIRST CLASS.

King, David Alex. (Scholarship and Gold Medal), St. Barth. Hosp.
Wooldridge, Leonard C., D.Sc. (Gold Medal), Guy's Hospital.
*Harris, Thomas, Owens College.
Collingwood, David, University College.
Adeney, Edwin Leonard, Guy's Hospital.
Wilkinson, William Camac, B.A. Sydney, University College.
Honeyburne, Richard, L'pool Royal Infirm. and Univ. College.
Webb, Malcolm, Owens College.

SECOND CLASS.

Eq. { Buxton, Dudley Wilmot, University College.
Eq. { Shaw, Lauriston Elgie, Guy's Hospital.
Fielden, William Eckett, Guy's Hospital.
Eq. { Scharlieb, Mary Ann Dacomb, Madras Med. Coll. and Roy. Free Hosp.

THIRD CLASS.

Pratt, Reginald, University College.
Eq. { Batterham, John Williams, Westminster Hospital.
Eq. { Dingley, Edward Alfred, University College.
Shove, Edith, London School of Medicine for Women.

OBSTETRIC MEDICINE.

FIRST CLASS.

Scharlieb, Mary Ann Dacomb (Scholarship and Gold Medal), Madras Med. Coll. and Roy. Free Hosp.
King, David Alex. (Gold Medal), St. Barthol. Hospital.
Honeyburne, Richard, Liverpool Roy. Infirm. and Univ. Coll.

SECOND CLASS.

Shove, Edith, Lond. Sch. of Med. for Women.
Dingley, Edward Alfred, University College.
Harris, Thomas, Owens College.

FORENSIC MEDICINE.

FIRST CLASS.

Wilkinson, W. Camac (Scholarship and Gold Medal), Univ. Coll.
Webb, Malcolm (Gold Medal), Owens College.
Maddison, Wm. Thomas, King's College.
Wooldridge, Leonard Charles, Guy's Hospital.
Currie, Oswald James, Guy's Hospital.
Scharlieb, Mary Ann Dacomb, Madras Med. Coll. and Roy. Free Hosp.

SECOND CLASS.

Dingley, Edward Alfred, University College.
Batterham, John Williams, Westminster Hospital.
Adeney, Edwin Leonard, Guy's Hospital.
King, David Alexander, St. Bartholomew's Hospital.
Vinrace, John Hinks, Queen's Coll. Birm. and Univ. College.

THIRD CLASS.

Honeyburne, Richard, Liverpool Roy. Infirm. and Univ. Coll.
Collingwood, David, University College.

* Obtained the number of marks qualifying for a gold medal.

UNIVERSITY OF OXFORD.—At a congregation held on Dec. 7th the degree of M.D. was conferred on—

Joseph Arderne Ormerod, Jesus.
Samuel Hatch West, Christ Church.

UNIVERSITY OF CAMBRIDGE. — At a congregation held on Dec. 7th the degree of M.D. was conferred on—

William Collingridge, Christ's.

UNIVERSITY OF DURHAM. — At a convocation held on the 12th inst. the following degrees were conferred:—

M.D. (practitioners of fifteen years).—P. Colmer, P. Cowen, E. Goddard, A. C. Rayner, and G. Thompson.
M.D.—A. W. W. Dowding, T. Dutton, A. Mantle, G. L. Pardington.
M.B.—D. H. Barley, F. W. Giles, P. Brown, J. Hartley, W. Sheppard, M. S. C. H. Milburn, W. Sheppard.
M.B. *ad eundem*.—Rev. R. R. Furlong, Trinity College.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Dec. 7th:—

Culhane, Francis John Fitzgerald, St. Helens, Hastings.
Dobbs, Charles John, Newport, Isle of Wight.
Hewitt, Frederick Wm., Grove-place, Pond-street.
Maddison, Charles John, William-street, Regent's-park.
Sparkes, Claud Stephen, St. Catherine, Guildford.
Stephens, Samuel, Camborne, Cornwall.

The following gentleman also on the same day passed the Primary Professional Examination:—

Anwyl, James Norman, St. Bartholomew's Hospital.

IT is proposed to increase the number of coroners for Surrey from three to five—two for the East, two for the West, and one for the Central Districts.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The third meeting of the twenty-seventh session, 1882-83, was held at the Royal Kent Dispensary, Greenwich-road, on Dec. 1st, when Mr. H. W. Jackson read two papers, entitled, "Some Diseases and Injuries of Prehistoric Man," and Royat in the Puy-de-Dôme as a Health Resort."

FACTORY ACTS.—At the County Petty Sessions, Faversham, Kent, on the 7th inst., Mr. J. A. Redgrave, Her Majesty's Inspector of Factories, appeared to prosecute the Cotton Powder Company (Limited) for having employed young men and women in their works on Sunday, Nov. 5th. One young man lost his hand through an explosion on the occasion. Penalties and costs amounting to £16 10*s.* were inflicted.

HOSPITAL SATURDAY AND SUNDAY IN THE PROVINCES.—At the annual meeting of the Shrewsbury Hospital Sunday Committee on Monday, it was stated that £288 5*s.* 3*d.* was collected in thirty-three places of worship, which was 15*s.* 6*d.* less than in the previous year; £142 10*s.* was given to the Salop Infirmary, and the remainder between the Eye and Ear Hospital and Dispensary.—Nearly £1000 has been received up to the 11th inst. by the Hospital Saturday Committee of Wolverhampton as the result of the annual contributions made by the artisans, shop assistants, and others, on the previous Saturday, in aid of the Wolverhampton and Staffordshire Hospital.

WORKING MEN'S SEASIDE CONVALESCENT HOME.—About eighteen months ago a movement was commenced to establish a Convalescent Home for Working Men in connexion with the Hospital Saturday Fund, which, however, was not to be touched for the purpose. About £320 has been subscribed, and it has been decided to purchase a large house at St. Margaret's, near Dover, which would accommodate thirty or forty patients. At a meeting held last week at Old Ford, to promote the enterprise, Mr. Hamilton Hoare said the bank with which he was connected had authorised him to promise the advance of whatever funds might be needed to purchase the site of the proposed Home, so that the project, which is an eminently worthy one, is not without promise of success.

THE CAUSES AND PREVENTION OF BLINDNESS.—The fifth International Congress of Hygiene, which will meet at the Hague, Holland, in 1884, will award the prize of £80 offered by the London Society for the Prevention of Blindness to the author of the best essay written in English, French, German, or Italian, on "The Causes of Blindness and the practical means for preventing it." Besides this prize, the International Society for the Improvement of the Condition of the Blind reserves to itself the right to award a second prize of £40, or two prizes of £20 each, and a silver gilt medal with a diploma, should it see fit, to such of the essays as should, in the opinion of the international jury for the principal prize, be deserving of it; the last-mentioned prizes will be distributed at the centenary festival of the first blind institution founded by Haüy, which will take place in Paris in 1884.

THE YORKSHIRE POOR-LAW CONFERENCE (1882) will be held on Thursday, Dec. 21st, commencing at 10.30 A.M. precisely, in the Masonic Hall, Halifax. After the President's address on "Recent (i.e, last session's) Poor-law Legislation," papers will be read on "The Education of Workhouse Children in Public Elementary Schools," by Mr. Eneas Bottomley; on "Settlement and Removal," by Mr. N. W. Wright; and on "Vaccination," by Mr. Dolan. Discussion will follow the reading of each paper.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—At the last meeting of the above Association, held on the 8th inst., Dr. Irwin introduced for discussion "The Position of Ship-Surgeons," and the following resolution was unanimously adopted:—"That this Association is convinced that the medical and sanitary departments of our mercantile marine are in a highly unsatisfactory condition, and that the lives of passengers are frequently endangered thereby. That this Association desires to press upon the Government the necessity of an immediate inquiry into the position, status, and efficiency of surgeons upon passenger ships."

# Medical Appointments.

*Intimations for this column must be sent* DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ANNINGSON, BUSHELL, M.D.Cantab., M.R.C.S., has been reappointed Medical Officer of Health for the Chesterton Rural Sanitary District.

BATTERHAM, J. W., M.B., B.S., 1st B.Sc.Lond., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Wolverhampton and Staffordshire General Hospital.

BAKER, HENRY F., F.R.C.S.Ed., has been appointed Surgeon to the Cripples' Nursery, Park-place, Clarence-gate.

BROWN, WILLIAM J., M.B., L.R.C.S., has been appointed Surgeon to the Iron Works, Chester-le-Street.

BUTLER, G. E., M.R.C.S., has been appointed House-Surgeon to the Westminster Hospital.

CORNER, M. CURSHAM, L.S.A.Lond., has been reappointed Clinical Assistant to the Out-patient Department of the East London Hospital for Children.

ENGLAND, RICHARD E., M.D., has been appointed Honorary Medical Officer to the Dover Hospital.

FOWLER, CHARLES OWEN, M.R.C.S., L.S.A.Lond., has been appointed Assistant Resident Medical Officer to the London Fever Hospital, Islington.

HEYGATE, WILLIAM HARRIS, M.R.C.S., L.S.A.Lond., has been re-appointed Medical Officer of Health for the Crediton Urban Sanitary District.

HOPE, E. W., M.B., B.C.Edin., L.R.C.P., has been appointed House-Physician to the Wolverhampton and Staffordshire General Hospital.

JOHNSON, THOMAS, L.F.P.S.Glas., L.R.C.P.E., has been appointed Medical Officer for the High District of the Pontefract Union.

JONES, CYRIL LLOYD, M.D.Dub., M.B.Cantab., M.R.C.S., has been appointed Public Vaccinator for Christchurch and St. Saviour's District, St. Saviour's Union.

KELLETT, ROBERT GUY, L.K.Q.C.P.I., L.R.C.S.I., has been reappointed Medical Officer of Health for the Halstead Urban Sanitary District.

LARDER, H., M.R.C.S., has been appointed Junior House-Physician to the Westminster Hospital.

LEE, TIMOTHY WOOD, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Workhouse of the Thame Union, vice R. Lee, deceased.

MOODY, JAMES M., M.R.C.S., L.R.C.P.Ed., Senior Assistant-Physician to the Surrey County Asylum, Brookwood, has been appointed Medical Superintendent of the Surrey County Asylum, Cane-hill.

PATTISON, E. SETON, M.R.C.S., L.R.C.P.Ed., L.M., has been appointed Medical Officer to St. Mark's Training College, Chelsea.

RUSSELL, JAMES, M.D., C.M.Aber., M.R.C.S., has been appointed Medical Officer for the Sandhurst District of the Berkhampstead Union.

SANDERSON, R., B.A.Oxon., M.R.C.S., has been appointed Senior House-Physician and Chloroformist to the Westminster Hospital.

STIRLING, ALEX. WILLIAMSON, M.B., C.M.Ed., has been appointed Medical Officer for the High District of the Longton Union.

SYKES, WALTER JOHN, M.D., C.M.Ed., has been reappointed Medical Officer of Health for the Borough of Portsmouth.

WILLSON, H., M.R.C.S., has been appointed Medical Officer for the Christchurch District of St. Saviour's Union, vice T. S. Worboys, deceased.

WILSON, J. H., M.K.Q.C.P.I., M.R.C.S., has been appointed Medical Officer for the Second District and Workhouse of the Guiltcross Union, vice Sayer, deceased.

WHITE, CHARLES J., M.D., has been appointed Certifying Surgeon, under the Factory Act, for the Sandiand District, vice T. L. Marsden, resigned.

WRIGHT, ALFRED, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the Romford Rural and Urban Districts.

# Births, Marriages, and Deaths.

## BIRTHS.

CAMERON.—On the 10th inst., at Lochiel, Harlesden, N.W., the wife of Charles H. H. Cameron, L.R.C.P.Lond., M.R.C.S., prematurely, of a son, stillborn.

CLARK.—On the 15th ult., at Umritsur, Punjaub, the wife of H. Martyn Clark, M.B., C.M.Edin., Medical Missionary of the Church Missionary Society, of a son.

DAVISON.—On the 12th inst., at Langton House, Battle, Sussex, the wife of Rashell Davison, M.D., of twins.

EMRYS-JONES.—On the 5th inst., at St. John-street, Manchester, the wife of A. Emrys-Jones, M.D.Edin., of a son.

HUTCHINGS.—On the 7th inst., at Southborough, Tunbridge-Wells, the wife of Edward J. Hutchings, M.R.C.S., of a son.

LAMB.—On the 8th inst., at Yew Tree Cottage, Lewisham, the wife of William Lamb, M.D., of a son.

MANDERS.—On the 5th inst., at Agincourt House, Yorktown, the wife of Horace Manders, F.R.C.S., of a son.

RAYNER.—On the 12th inst., at the County Asylum, Hanwell, the wife of H. Rayner, M.D., of a daughter.

WALLIS.—On the 10th inst., at Priory-place, Doncaster, the wife of Ferdinand Wallis, M.R.C.S., of a son.

## MARRIAGES.

ANDREW—MARTIN.—On Oct. 28th, at Christ Church, Mussoorie, George Andrew, M.B., Surgeon-Major, A.M.D., to Milly, widow of the late Curtiss Martin, Brigade Surgeon, A.M.D.

DRURY—YOUNG.—On the 9th inst., at Holy Trinity Church, Bournemouth, William Vallancey Drury, M.D., of Lingmoor, Bournemouth, to Emelyn, eldest daughter of Edward Young, Esq., J.P., of Thornleigh, Bournemouth, and Birchfield, Lancashire.

MACGEAGH—DAVIES.—On the 6th inst., at Baltimore, U.S.A., by the Rev. Dr. Leeds, T. E. Foster MacGeagh, M.D., &c., eldest son of Benjamin Scott Foster MacGeagh, Esq., of Coombe House, Coombe, Surrey, and the Middle Temple, London, to Fanny, daughter of the late S. D. Davies, Esq., of Baltimore, U.S.A., and niece of Sir W. Rose Robinson, K.C.S.I. (By cable.)

SHARP—MORETON.—On the 7th inst., at Bushbury Parish Church, by the Rev. George Tuthill, Vicar of St. Paul's, Wednesbury, assisted by the Rev. J. W. Kenworth, Curate in Charge, Gwinnett Sharp, Surgeon, of Walsall, to Elise, younger daughter of the late John Moreton, of Moseley Court, Wolverhampton.

SWALE—PARISH.—On the 5th inst., at St. Mary's, Guildford, Harold Swale, M.B.Lond., of Ingfield Hall, Settle, Yorkshire, and of Tavistock, Devon, to Alice, daughter of Capt. Parish, R.N.R. (late of P. and O. Co.'s Service), of Guildford.

FRAMPTON—TURNER.—On the 7th inst., at Holy Trinity, Paddington, Tom Henry Trevethan, M.R.C.S., elder son of Thomas Frampton, M.R.C.S., L.R.C.P., to Kate, third daughter of the late J. Turner, Esq., of Cleveland-square, Hyde-park.

WELLS—WILLETT.—On the 9th inst., at the Parish Church, West Brighton, Anne Maria, second daughter of the late R. B. Willett, Esq., of 20, St. John's-terrace, West Brighton, to Chas. Wells, M.D., M.R.C.S.Eng., L.S.A.Lond., of 13, College-crescent, Belsize-park, N.W.

## DEATHS.

BOUGLAS.—On the 9th inst., at Carluke, James Douglas, L.F.P.S.Glas., aged 84.

BENSON.—On the 10th inst., at Bath, Ernest Walter Benson, B.A.Camb., L.S.A., M.R.C.S., youngest and beloved son of George Benson, Esq., Gloucester-street, Warwick-square, South Belgravia.

BAYES.—On the 8th inst., at Lansdowne-place, Brighton, suddenly, William Bayes, M.D., aged 59.

EDSWORTH.—On the 12th inst., suddenly, from congestion of the lungs, at 11, Collingham-place, South Kensington, Alfred Edsworth, F.R.C.S.E., aged 61.

FOLKER.—On the 1st inst., at Hanley, Staffordshire, Ellen Jane, wife of William Henry Folker, F.R.C.S., aged 52.

FRANCIS.—On the 10th inst., at Frederic-street, Sunderland, Matthew Francis, M.R.C.S., Surgeon to the Sunderland and River Wear Police.

GIBBONS.—On the 6th inst., at Waterloo-road, Dublin, Surgeon-General John Gibbons, Retired List, Companion of the Bath, and Chevalier de la Légion d'Honneur, late Surgeon of 44th, 95th Regiments, and Royal Artillery.

RITCHIE.—On the 30th ult., at Chesterhill House, Anstruther, N.B., the Rev. Wm. Ritchie, M.D., formerly of Barwick, Bovey Tracey, Liskeard, Plympton, and London, aged 82.

SAVORY.—On the 5th inst., at Wendover, Bucks, Arthur Henry Savory, M.R.C.S.E., L.R.C.P.Edin., youngest son of the late Joseph Thomas Savory, Surgeon, aged 34.

WATSON.—On the 11th inst., at Reigate Lodge, Surrey, Sir Thomas Watson, Bart., M.D., aged 90.

***N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.***

## METEOROLOGICAL READINGS.

*(Taken daily at 8.30 a.m. by Steward's Instruments.)*

THE LANCET OFFICE, Dec. 14th, 1882.

| Date. | Barometer reduced to Sea Level and 32° F. | Direction of Wind. | Dry Bulb. | Wet Bulb. | Solar Radia in Vacuo. | Max. Temp. Shade. | Min. Temp. | Rain fall. | Remarks at 8.30 A.M. |
|---|---|---|---|---|---|---|---|---|---|
| Dec. 8 | 29·22 | N.E. | 35 | 34 | .. | 39 | 29 | ·53 | Overcast |
| ,, 9 | 29·64 | N.W. | 37 | 35 | .. | 38 | 32 | .. | Overcast |
| ,, 10 | 29·84 | S.W. | 29 | .. | .. | 31 | 24 | .. | Foggy |
| ,, 11 | 29·76 | N.W. | 28 | .. | .. | 32 | 22 | .. | Foggy |
| ,, 12 | 29·71 | S.E. | 31 | .. | .. | 39 | 23 | .. | Overcast |
| ,, 13 | 29·54 | S.E. | 39 | 39 | .. | 47 | 28 | .. | Overcast |
| ,, 14 | 29·69 | N. | 40 | 40 | .. | 42 | 35 | .. | Overcast |

# Notes, Short Comments, and Answers to Correspondents.

*It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.*

*All communications relating to the editorial business of the journal must be addressed "To the Editor."*

*Lectures, original articles, and reports should be written on one side only of the paper.*

*Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.*

*We cannot prescribe, or recommend practitioners.*

*Local papers containing reports or news-paragraphs should be marked.*

*Letters relating to the publication, sale, and advertising departments of* THE LANCET *to be addressed "To the Publisher."*

### AN IMPROVEMENT IN MERCURIAL THERMOMETERS.

MR. S. G. DENTON has recently exhibited at the Meteorological Society forty-six newly made mercurial thermometers, constructed in a special manner, the zero of which has remained constant for over twelve months. The thermometers comprised twenty-three standards and twenty-three clinicals. To prove that they were newly made, the pieces of enamel stems were sent to the Kew Observatory and hall-marked previous to having their bulbs blown. They were then constructed into thermometers, graduated, and returned to the observatory, and tested throughout. They were then placed under seal by the superintendent, and remained so for over a year, and after that time were again tested, the mean amount of change being only about half a tenth of a degree Fahr. A standard thermometer made by the same process as above was also shown, it having been verified in 1873 and in 1882; the zero was still constant.

### "ON THE INTERNAL ADMINISTRATION OF CHRYSOPHANIC ACID IN PSORIASIS."

*To the Editor of* THE LANCET.

SIR,—With reference to Mr. Canty's communication on the above (THE LANCET, Dec. 2nd), I ask permission to draw attention to my paper, "Deductions from 319 observations of the action of chrysarobin—a new emetic purge," which was read before the Harveian Society of London in 1877, published in the *British Medical Journal* in May of that year, and published by Mr. Balmanno Squire in his "Chrysophanic Acid in Skin Diseases," in 1878.

Chrysarobin is the name by which freshly prepared Goa, Bahia, or Aroba powder is known. Chrysophanic acid, present in the proportion of 80 to 84 per cent. (Attfield), and resinous bodies (2 per cent.) having a similar action to the former, are the active principles of chrysarobin, or, as it may be less conveniently called, "yellow Aroba powder."

In the paper named I claim to have first observed the marked effect which chrysophanic acid has of discharging large quantities of bile from the body, foreshadowed its usefulness in small, repeated doses in cases of inactivity of the liver, and given such observations as I think enable the reader to deduce for himself the way in which small doses may be given so as to avoid the unpleasant effects which prevented continued medication with them in some of Mr. Canty's cases. In large doses (ten to fifteen grains) I have found it a valuable emetic purge, which I should now be very unwilling to lose the use of.

I am, Sir, yours, &c.,

J. ASHBURTON THOMPSON.

Thatched House Club, St. James's-street,
Dec. 7th, 1882.

### MUSHROOM CATSUP.

A MICROSCOPICAL EXAMINATION of several samples of mushroom catsup has recently been made by a well-known fungologist, Mr. Worthington G. Smith, and has brought to light several details of its composition that must be highly pleasing to lovers of this condiment. Of four samples manufactured in London, in one he found only matter which looked like mashed up toast and salt; in another decayed fish, mildew, and broken twigs; in a third, fungus spawn, mildew spores, crushed walnut-husks, and vibriones, large black spores evidently belonging to the genus *coprinus*, and brown ones recognisable as those of the horse-mushroom. Genuine mushroom catsup should exhibit basidia, cystidia, and spores of the true mushroom, salt crystals, and occasionally a pollen grain or fragment of pappus, but nothing more.

### IMITATION BUTTERS.

OF these there are several kinds. *Butterine* is made by a respectable firm and of sound materials, and is a cheap and wholesome substitute for butter when this is dear. It is made, according to one receipt, by melting beef suet in warm water with carbonate of potash; then pressing out the oleo-margarine from the stearine, mixing the former with the soluble matter from cows' udders, a little annato, and a due proportion of milk, and then churning. *Bosk* is made by a direct admixture of various fats with (often very inferior) butter.

### THE TREATMENT OF UNUNITED FRACTURE.

*To the Editor of* THE LANCET.

SIR,—In the columns of THE LANCET of December 2nd, I see, on page 940, an account of a "case of ununited fracture of the humerus in an old man successfully treated by resecting the ends of the bones and fastening them together with a probe." Was not this operation severe, more especially so in an old "debilitated" man? On March 8th, 1864, a paper by Mr. Bickersteth was read before the Royal Medical and Chirurgical Society on the treatment of ununited fracture. In this paper he described a method of treatment by simply nailing the ununited ends of the bone together with a drill, which was then left in position by the removal of the handle. This without any resection, be it noted. The operation yielded the most satisfactory results. Since that date Mr. Bickersteth has further elaborated his method. I regret I cannot lay my hand upon the paper or reference to it. A sharp clean drill is taken, fitting into an Archimedean screw, and two or three pegs of ivory are carefully adapted to fit tightly into the drill hole, of suitable length, the upper ends to be slightly thicker than the lower. A small incision is made down upon the ununited ends of the bone, with all antiseptic precautions. The drill is passed into the bone in two directions, so as to nail both ends together; the drill is removed; the pegs are inserted, and driven completely home by a few taps of the mallet. The skin incision is closed, the wound dressed in the usual manner, and a suitable splint applied. On removing the dressing in about a week's time, the wound is found soundly healed. The pegs undergo changes consequent upon being tightly grasped by the living bone, and are not usually seen again. Firm union results. I can conceive it quite possible the operation might require repetition. In the cases that have come under my own observation no disturbance followed the slight operation.

I am, Sir, yours, &c.,

December 11th, 1882. W. T. C.

*Dr. Ross, Mr. Louis Birch, and others.*—The subject will not be overlooked.

### ECZEMA.

*To the Editor of* THE LANCET.

SIR,—Perhaps some of your correspondents can furnish a hint for the treatment of the following case:—

A gentleman, aged thirty-five, suffers yearly from an eruption of eczema on the backs of the hands and wrists which comes on when the weather gets warm, about the beginning of summer, and generally declines as the weather gets cooler, but recurs every year. He has many of the marks and appearances of the scrofulous habit, and there is an obscure history of gout in his family; but, with the exception of being rather nervous, he has nearly always had fair health. The remedies which seemed to have done most good are iron in large doses, arsenic, Easton's syrup, and limewater, also milk diet and a bracing atmosphere, but nothing I have tried seems to prevent its recurrence in hot weather.

I remain, Sir, yours obediently,

December 12th, 1882. MEDICUS.

*M. T. G.*—Writers of letters are responsible for the contents of their communications.

### SALICYLATE OF SODA IN SCARLATINA.

*To the Editor of* THE LANCET.

SIR,—There is an epidemic of scarlatina here of a severe character. I wish to record the very great benefit that seven cases have received by the prompt exhibition of salicylate of soda. I give it in doses of fifteen grains every two hours to adults until the singing in the ears is produced, and then the dose is given every four hours during the first week. In all of my patients so treated the anginose symptoms have disappeared, and they have made good recoveries. For children I give one grain of the salicylate for every year of age of the patient.

I am, Sir, yours faithfully,

Scunthorpe, near Brigg, Dec. 11th, 1882. JAMES COULDREY.

### FRIENDLY SOCIETIES MEDICAL ASSOCIATIONS.

*Justitia* says that an association of the above type is about to be started in a town of about 15,000, and asks our opinion, and that of our readers, on the subject. Our opinion is soon told. The existing Associations of this class have reduced the scale of remuneration for medical services, and disturbed far more respectable arrangements for medical attendance on the working classes and their families. They are not institutions that we can approve. They contemplate medical attendance on a monster scale for a miserable pittance that may attract a young and impecunious man, but should have no countenance from established and experienced members of the profession, and, we may add, a pittance that should not be offered by respectable working men to their medical advisers.

### INTERVENTION OF THE GERMAN GOVERNMENT IN THE CORPORAL DEVELOPMENT OF YOUTH.

ABOUT six months ago a society was established at Düsseldorf for the purpose of propagating in a systematic manner the generally received opinion that gymnastic exercises are of advantage to the corporal development of youth. Herr Von Gönler has issued a circular dwelling on the importance of suitable rooms and open spaces being provided for such exercises. He calls attention to the arrangements which he considers most suitable for carrying out the various suggestions which have been made by competent authorities from time to time as to the exercises most appropriate for the class of schools intended to be dealt with in the Government scheme.

## GLASGOW ROYAL INFIRMARY.

*To the Editor of* THE LANCET.

SIR,—In your issue of the 9th inst. there was a description of the New School of Medicine in connexion with the Royal Infirmary, Glasgow. In that account there is mention of a room set apart for "smoking, chatting, and reading." Now, to any person acquainted with students, such an arrangement shows a decided want of experience in organising a medical school, as smoking and chatting are not consistent with reading. On an average there are three hours per day not occupied by classes, which amounts to a good total at the end of the session; and if there was a suitable room this time could be profitably employed. The students have already asked the directors to remedy this defect, and apparently only the will is lacking, as there is a very suitable room, which at present is not used for any purpose, although ostensibly set apart for a surgical museum, for which object, according to the lecturer in surgery, it is wholly unsuitable. As THE LANCET at various times has been the means of causing improvements in medical matters, we hope, by our letter appearing in your columns, it may give the necessary stimulus to the directors to remedy a defect which seriously interferes with the studies of the students.

We are, Sir, yours, &c.,

December 12th, 1882. TWO ROYAL INFIRMARY STUDENTS.

*Ajax.*—Under the circumstances a minimum fee of ten guineas.

*Dr. Octavius Sturges.*—Yes.

## "ORCHITIS IN TYPHOID FEVER."

*To the Editor of* THE LANCET.

SIR,—Having read your very interesting article on the above subject in the issue of December 9th, I think you may like to have my personal experiences on the subject. About the middle of November, 1881, I had a mild attack of typhoid fever, and had become quite convalescent, having been out two or three times, when I had a sudden attack of orchitis, accompanied by extreme tenderness of both calves (? phlebitis of external saphenous veins, or myalgia of sural muscles). The left testicle was the one affected particularly, and the pain was excruciating for about ten days when touched or pendent. After that I was obliged to suspend the testicles for three or four weeks, and they always ached after any extra exertion for a month or two afterwards. The scrotum was reddened; there was no urethral discharge. The epididymis was not especially involved, but the spermatic cord was tender for a short time, and the swelling was globular and about the size of a duck's egg.

I am, Sir, faithfully yours,

EDWARD P. MANLY.

Cavendish College, Cambridge, Dec. 12th, 1882.

*W. G.* should seek the advice of a qualified medical man.

*Dr. Harding.*—Too late for this week.

## ART. "GOITRE" IN QUAIN'S DICTIONARY.

*To the Editor of* THE LANCET.

SIR,—A letter appeared in THE LANCET of December 2nd, page 970, signed "Chirurgus," which questioned the correctness of some of the statements in my article on "Goitre." If the anonymous writer of that letter will publish his name, I will refer at length to his strictures. I may add that should my answer give satisfaction to the readers of the article on "Goitre," it probably will not give equal satisfaction to the surgeon who has written anonymously.

I am, Sir, yours faithfully,

December 12th, 1882. PUGIN THORNTON.

### THE EFFECT OF THE ELECTRIC LIGHT ON HEALTH.

THE above question was lately discussed at a meeting of the Hygienic Society of Hamburg, and Dr. Krüss explained his views on the subject at some length. He referred to the influence of the electric light on the human eyesight, and expressed his opinion that it produces no evil effects, the light having a violet tinge under most circumstances. He referred to the somewhat exaggerated expectations which had been formed as to the distance at which the light was visible at sea; but, on the whole, he considered that the safety of human life at sea had been increased by the use of the electric light in lighthouses. The electric light being free from the disadvantages incidental to the combustion of gas in the consumption of oxygen and the production of carbonic acid, he considered its development as being a hygienic measure of relative importance.

### THE CONSUMPTION OF TOBACCO.

THOSE who take part in the perennial crusade against tobacco, and all who disapprove of its excessive use, will be glad to learn that the consumption of tobacco is as small in England as in any other civilised country. From some statistics on the subject which have been published by a French journal, *Les Mondes*, it appears that in Russia, France, and England the consumption amounts to 1 lb. per inhabitant. In Italy it is rather higher, 1½ lb. Austria comes next with 2 2-5 lb. In the United States and Germany the consumption amounts to 3 lb., in Belgium to 4 4-5 lb., while Holland has the privilege of heading the list with a consumption per inhabitant of more than 6½ lb.

*Antigua.*—We have no knowledge of any respectable institution which grants degrees in medicine without examination, and we shall not pay our readers the poor compliment of asking them if they know such.

WE are unable to find room this week for *Dr. Donkin's* communication.

*Subscriber.*—THE LANCET, vol. ii., 1861.

## PROFESSIONAL ETIQUETTE.

*To the Editor of* THE LANCET.

SIR,—A woman brought her little boy to me on Saturday evening, December 2nd. I prescribed for him, and told the mother he was too ill to be out; if not better, to let me know. They were staying at a farm bailiff's a short distance from the town, whom I had attended previously. On December 4th I was sent for to see the boy, and found him suffering from scarlatina. I wrote at once to the bailiff's employer, saying what the boy was suffering from, and advising him not to let his children go to the house. The next morning, on visiting my patient, I found Mr. Duke had been the previous evening, and Dr. Chessman, his partner, had preceded me that morning, and had gone away to get a room for my patient in the town, where he was moved in the course of the day from a lone house out of the town to a house in the middle of the town in a thoroughfare, without my consent—indeed, without any communication with me by the employer or his medical attendants (Duke and Chessman). I ought to mention that, as medical officer of health, at some inconvenience early in the day of the 4th I went to see my patient, with the intention of taking all proper measures to "stamp out" the disease which, being in a lone house, was in a most suitable place for so doing.

I am, Sir, yours, &c.,

Buckingham, Dec. 11th, 1882. ROBERT DU'ATH.

*Dr. G. Stanley Murray.*—A medical man's claim would be on the friends. But the proprietor of an asylum is supposed to see that such claims are satisfied.

*Dr. Maurice G. Evans.*—Mr. Stump, Great Portland-street, W.

## CASE OF FREQUENT TAPPING IN ASCITES.

*To the Editor of* THE LANCET.

SIR,—B. S——, aged forty-two years (formerly a hospital nurse), was anxious that her case should be noticed in your valuable journal, and as it may interest some of your readers, I am glad to comply with her request. I may briefly state that the patient had been under treatment for many years at various times for congestion of the liver and stomach, and was eventually brought to death's door from an attack of violent hæmatemesis, from which she rallied slowly. The dropsy first showed itself during her recovery. Having diagnosed the case to be one of cirrhosis of the liver, I tapped her early, and removed about a gallon and a half of fluid on Jan. 8th, 1881. Between this date and Aug. 27th, 1882, I tapped her no less than thirty-nine times, and removed 110 gallons of fluid, the patient finally sinking from exhaustion on Sept. 7th. The treatment was merely palliative, the usual remedies for dropsy not suiting her. I used a cannula of small calibre, with india-rubber tubing attached, the process of tapping generally lasting an hour; and since it was so well borne, I was enabled to visit other patients in the interim. None of the directions mentioned in the text-books as to the use of compress and bandage were complied with, and the patient lay on her back or side, as she felt disposed. No post-mortem was made, as the nature of the case was evident.

I am, Sir, yours, &c.,

Edinburgh, Dec. 1882. R. H. PATERSON, M.R.C.S.

*A Twenty Years' Subscriber.*—1. There is no extra fee provided, under the Poor-law, for reducing strangulated hernia without the use of the knife. If the case were a very bad one, there could be no harm in a statement to the Board and an application for remuneration.—2. Rectified spirit is not so applicable to those practical purposes as the finer brandies, though, according to Sir Robert Christison, it is more free of grain oil than common spirits.—3. We think diagrams would not suffice for the examination referred to.

ERRATA.—In our annotation last week headed "Downing College, Cambridge," for "Mr. Alex. Hall," read "Mr. Alex. Hill."—In the last line of Mr. Innes' article on "Stone in the Bladder," p. 934, for "visceral matters," read "viscera matted."

COMMUNICATIONS, LETTERS, &c., have been received from—Sir James Paget, London; Professor Graham Bell, Washington; Professor Bigelow, Boston, U.S.A.; Dr. De H. Hall, London; Dr. Cobbold, London; Dr. Henry Thompson, London; Mr. J. Jones, Lewes; Mr. Birch, Epperstone; Mr. De'Ath, Buckingham; Mr. Knowsley Thornton, London; Dr. Shaan, Cambridge; Mr. H. C. Cowan, Dundee; Mr. Lomont, Newcastle-on-Tyne; Mr. E. Pope, Tring; Dr. J. C. Hutchison, Brooklyn; Mr. Pugin Thornton, London; Mr. Couldrey, Scunthorpe; Mr. Chavasse, Birmingham; Mr. Martin Coates, Salisbury; Mr. Hopkins; Mr. Royce, Oakham; Dr. Campbell, Garlands; Mr. Manby, Cambridge; Dr. Anderson; Dr. M. G. Evans, Cardiff; Mr. J. Hamilton, Swadlincote; Dr. Ashburton Thompson, London; Miss Mechi; Mr. Ellison, Leeds; Mr. Turner, Norwich; Mr. E. Prideaux; Dr. Delafield, New York; Dr. Mallins, Walton; Dr. Clapham, Wimbledon; Rev. B. J. Bateman, Pentre Mawr; Mr. Drew, London; Mr. H. Lee, London; Surgeon-Major Hamilton, Dublin; Mr. F. K. Green, Bath; Dr. Puckle, Havana; Mr. Grace, Bristol; Mr. C. F. Hancock, Hendon; Mr. A. E. Barker, London; Mr. Wheeler, Manchester; Messrs. Turnbull and Wood, Newcastle-on-Tyne; Mr. F. Edwards, Ravenstown; Dr. O'Sullivan, Burnley; Dr. Laffan, Cashel; Mr. Millican, Kinston; Dr. Barron, Southport; Dr. Burnet; Dr. Geo. Johnson, London; Dr. H. Donkin, London; Mr. Fradelle, London; Dr. Moxon, London; Dr. Brown, London; Mr. Scott, Manchester; Mr. Twyford, Hanley; Messrs. Wood and Co.; Mr. Baker; Mrs. Webb, Drighlington; Dr. Houghton, St. Leonards; Mr. Luther Holden, London; Dr. S. W. Abbott, Wakefield, Mass.; Dr. W. T. Gairdner, Edinburgh; Mr. Hartridge; Dr. T. C. Williams, London; Mr. Henston, Paris; B.; R. R.; Justitia; M. T. G.; Ajax; Inquirer; Medicus; M.D.; The Editor of *Truth*; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Pace, Newcastle-on-Tyne; Mr. Phillips, Hoxne; Mr. Manders, York-town; Mr. Burgess, Manchester; Mr. Everest, Bodmin; Messrs. Singer and Co., Coventry; Dr. Davidson, Uley; Surgeon-Major Nox, Dundalk; Mr. Barcombe, Lincoln; Dr. McMurray, Warren Point; Dr. Glover, Dorrington; Messrs. Hill and Co., Glasgow; Mr. Sergeant, London; Mr. Epburn, Coxhoe; Mr. Owen, Liverpool; Mr. Spencer, Walsall; Mr. Wilmore, Walsall; Dr. Sibbit; Mr. Lambert; Mr. Murray, Brighton; Dr. Johnson, Bournemouth; Mr. Richardson, Rhayader; Mr. Brett, Bridlington; Dr. Rayner, Hanwell; Messrs. Maclachlan and Co., Edinburgh; Mr. Lee; Mr. Walker; Mr. Birchall, Liverpool; Mr. Bremd; Mr. Gilbert; H. F.; Medicus, Spitalfields; Midlands; Medicus, Sheffield; G., Whitechapel; L.R.C.P., Long Eaton; Kate, Birmingham; Madame, Cheltenham; G.; J. C., Accrington; W. M.; Secretary of the Boscombe Infirmary; J. H.; Zeta; Zero; Medicus; Doctor; E. J., Seaford; Surgeon, Southwark; A. B., Blackfriars; Alpha, Poplar; &c. &c.

*Leamington Spa Courier, Edinburgh Courant, Sunderland Daily Echo, Port Elizabeth Telegraph, Leeds Daily News, Burnley Express, Leeds Mercury, Newcastle Daily Journal*, &c., have been received.

# Medical Diary for the ensuing Week.

## Monday, Dec. 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Braxton Hicks, "On the Tension of the Abdomen."—Dr. Wiltshire, "On Abdominal Pulsation."

## Tuesday, Dec. 19.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. The following specimens will be shown:—Disseminated Polypi of Colon; Polypus of Rectum; Specimens of Casts made of a New Material; Disseminated Abscesses in Liver of Python and of Kangaroo; Nerves from Three Cases of Infantile Paralysis; Case of Infantile Bone Disease; Addison's Disease without Bronzing; Bone and Brain Disease in Syphilis; Micro-Organisms from Pyæmia; Cancer of Omentum (card specimen); Specimens of Neuromata; Urinary Calculi chiefly composed of Carbonate of Lime.

## Wednesday, Dec. 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

## Thursday, Dec. 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

## Friday, Dec. 22.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

## Saturday, Dec. 23.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M


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